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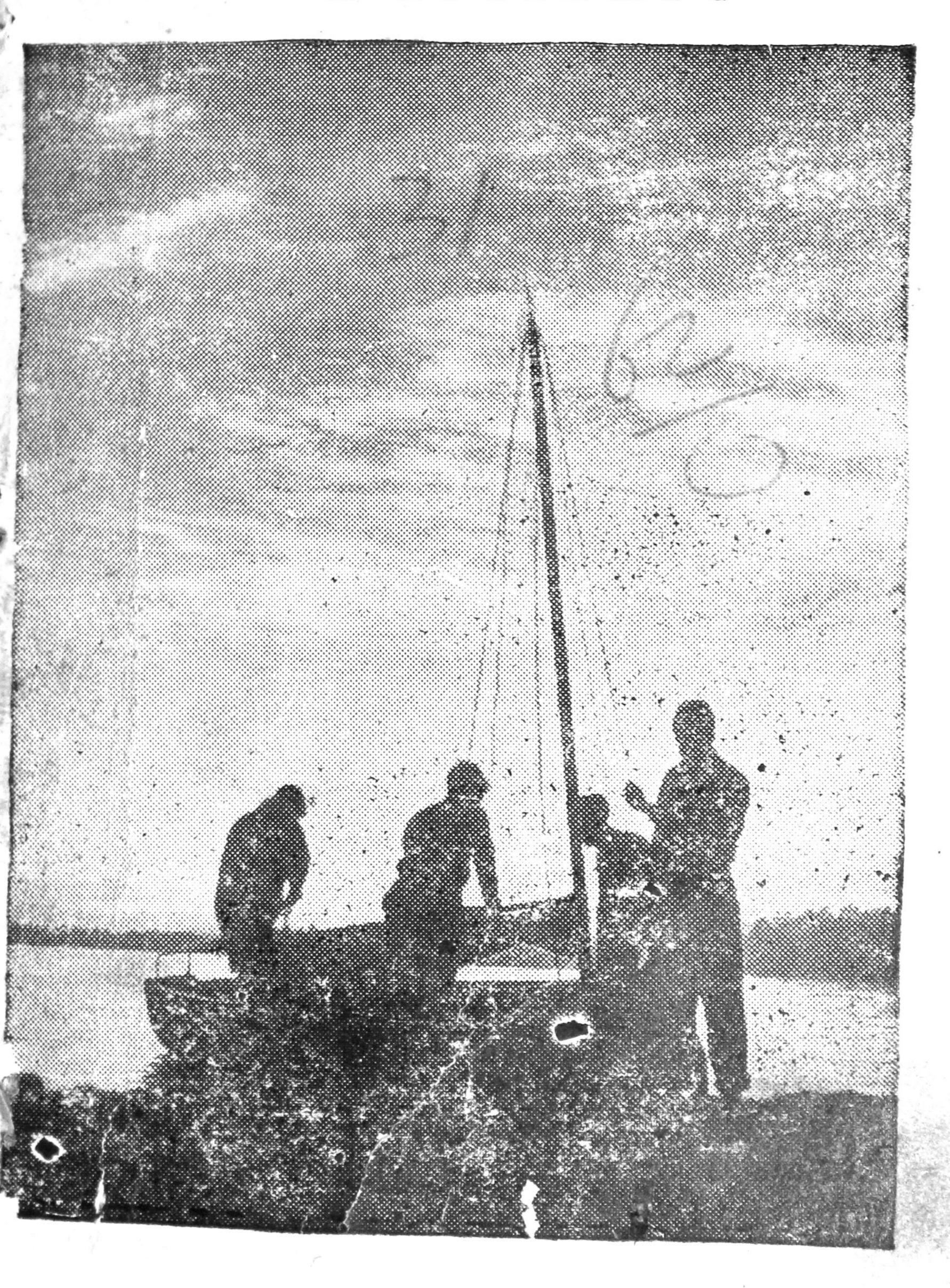
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# NEW HORIZONS

# EDUCATION



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# NEW HORIZONS IN EDUCATION

With a Foreword by

Dr. TARA CHAND M.A., D.PHIL. (OXON).

Secretary and Educational Adviser

To the Government of India

Ex-Vice Chancellor, University of Allahabad

Prithve Nath Razdan

To my Father who is in Heaven; and to the fellow members of the Teaching Profession



Pt. Sri Kant Razdan who served the Teaching Profession through the Kashmir C.M.S. Biscoe School for more than 38 years or more and died in September 1939

# FOREWORD

Pandit Prithve Nath Razdan, a teacher of considerable experience of school teaching, has given much thought to some of the problems of education which free India has to face. He has collected together in this book the articles which he has written and published from time to time and in which his experiments in education and his conclusions are embodied.

Education is a subject of supreme national importance, for on education will depend the pattern of our culture, the strength and solidarity of our national life and the welfare and happiness of untold millions of individuals. The Indian educational system, as established by the British, needs a complete overhaul. In spirit, objectives and methods, an entirely new system is needed if the requirements of a free society are to be fulfilled.

Such an achievement requires the co-operation of many minds, of philosophers and thinkers, and of educators who can leave the old ruts and strike out new paths, of teachers who will devote their energies to understand the problems of India's children and who will find Indian ways of solving them. In such an endeavour attempts like those of the author of this book will be helpful.

Dr. TARA CHAND, M.A., D.Phil. Secretary.

MINISTRY OF EDUCATION
Government of India,
NEW DELHI.

# An Apology

This book is unique for one reason. It is a teacher's life research. Mr. Razdan is one of the very few teachers of our country who believe in the rhythm and usefulness of Education. In the pages of this book will be found something not found elsewhere, and that something is not theory but practice, an experimentation in the best surroundings.

As the book has taken a pretty long time to print in a small press, and the author could get no opportunity of going through the proofs, errors have crept in inadvertently. The publishers and printers apologize for such errors, which will be removed in the subsequent edition.

Publishers & Printers.

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- (1) that distinguished educationist, eminent Vice-Chancellor and popular Educational Secretary and Advisor to the Government of India for contributing a precious Foreword to the book, as has already been mentioned in the Preface, and thus raising it in Public esteem.
- (2) the editor "Teaching, published by the Oxford University Press, Bombay" for the courtesy they have shown me by publishing my articles and for permission to reprint:
- (1) my articles "Moral Training in C. M. S. Central (Biscoe School Kashmir, September 1944 issue", (2) Practical Suggestions for the Training of Teachers, June 1945 isssue", whose copy right vested with them.
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Section 2

## PREFACE

India is born anew. She has cast off her external cover and come out into her own. This is her first exposure in a congenial atmosphere of free air after a very long time. The New cover, or should I say the new charming skin, (since the new Government is not alien but her own) which she has grown after centuries of servitude or foreign domination no doubt through mutual good will and active co-operation of the rulers and the ruled alike, though still delicate, is bound to become tough and strong not in the negative sense but in order to protect and develop its internal organs—the citizens and their progeny—rapidly and healthily to their and to its own advantage so that free India as a whole may stand out erect prominently as a model of all round progress and even contribute lavishly for cosmic love, brotherhood and world peace as the Indian leaders have all along been advocating. emphasizing and even translating it into action from time to time.

India has got her independence and the Indians are now the masters of their own fate but complete independence or the people's Govern-

This applies with still greater vehemence to education where 'Worth not Birth' should have preference beyond the compulsory stage and where education should mean a thorough practical training for a trade or vocation a boy or girl is fit for; or an effective guidance in higher technical, cultural, scientific or other studies and research work; and not thurst a course of study, he is averse to, on him. Sorry to say that this principle though universally accepted in theory has not been implemented in practice.

Besides a thorough physical, moral and intellectual up-bringing, a student should also be given a foretaste of the exuberence of life in all its aspects and hardened to its realities. In short he should be prepared for a life to live and also become a past master in his special line as far as his capabilities can carry him, but poverty, caste, creed or colour should in no case stand in his way so long as he can benefit by such an

encouragement and be useful to the State at large.

As has already been acknowledged all education should be child-centered and his knowledge should be built on the nucleus of his natural interests and propensities in an atmosphere of freedom and in a play-way manner with expert psychological guidance but not external force.

This then should be the guiding principle or 'The Spirit of New Education.'

In the chapters that follow I have endeavoured, in my humble way of course to show how the new spirit infused in our modern education is expected to stir it up a little and how a few of the many progressive institutions of the country (there are many others which I have not mentioned or described here) have been and are, whether consciously or unconsciously, working merrily and happily and preparing men and women of the right type or at least building sound foundations in that direction.

This booklet is brought out with a fervent hope that it will be warmly received in spite of its shortcomings and weaknesses. Being conscious of my limitations, I would like to appeal

for generous suggestions for its further improvement.

For a further elucidation of the practical side of the theory of the following pages the reader will read with interest Principal Shrimali's and other writers' descriptions of the Udaipur Vidya Bhawan and other experiments in Teaching and other Journals and allied subjects by many other ditinguished writers.

To conclude, I feel, I shall be failing my duty if I do not express my most sincere thankfulness and a deep debt of gratitude which I owe to Dr. Tara Chand Sahib for the tremendous honour he has so very graciously done me by snatching a little of his most valuable and awfully busy time to write an encouraging FOREWORD to the book which has really enhanced its value manyfold and literally raised it from dust.

Prithvi Narh Razdan, (Mahanori)
Chinkral Mohalla,
2nd Bridge,
Sinagar, KASHMIR.

# l-New Spirit in Education

Complete independence is now in our hands.

The invigorating waves of the feelings of freedom have invariably infused a new spirit in us. The first pleasant breeze that has blown as a result of the lifting of thraldom from our shoulders, has refreshed us and rejuvenated us, so much so that the dawn of our freedom has begun by the lead our country has given towards the unification of all Asia in all spheres, cultural, educational, scientific, economic or political, as a first step towards creating a world confederation of nations and effecting a cordial relationship amongst all races, irrespective of colour, creed or the country they may belong to.

India is independent but she cannot escape being interdependent for her own well-being and progress. The fragrance of freedom is so exhilarating that it creates such an environment as is conducive to the full development of a nation, race or a complete democratic individual—a phenomenon which may not be easily possible in an atmosphere of complete dependence however light or pleasant it may seem to be.

It is in this atmosphere of freedom that new education for the modern generation should be fashioned.

### I. BUILDINGS

As a first step this modern spirit envisages a complete freedom from want so far as is possible. Present education

suffers from lack of proper environment resulting from the horrible want of school buildings and equipment. There are few government or school-owned school buildings worth the name and it is no use educating our future citizens in dark, dingy and shabby rented blocks in undesirable quarters and surroundings more often than not far away from the wholesome home influence of the boys, which is so essential in the early period of schooling.

It will be good, I think, if we not only aim at but also strive our best to own nice well-ventilated school buildings everywhere as far as possible in the centre of each locality or area instead of repugnant dilapidated sheds where dumb driven mute animals, the boys, are flocked together in unclean, unhealthy grazing-grounds—the class rooms.

What aesthetic sense will such boys develop? What intellectual food will they get for their constructive brains?

Verily you may take me for a visionary—one who indulges in platitudes and dreams of the dreamland. You may blame me too, for asserting to achieve what appears cannot be achieved at least for some generations more.

True, that the cost of owning these school buildings will be colossal and any attempts at taking the task in hand forthwith will unnecessarily burden the leaders of the country who are preoccupied with more urgent problems.

Notwithstanding all this, however, this is a pressing problem of the hour and deserves immediate consideration at the hands of our leaders and administrators alike. Besides, it is better and becoming to plant a tree now and wait for its fruit and then extend our plantations more and more as our capacity, needs and standards increase than not plant any trees at all.

How may this be brought about: ?

Let us begin from the rural areas. For a full primary rural school the monthly rent varies from Rs. 15 to Rs. 30 p. m. say.

Apart from the grazing grounds for cattle there usually is a lot of other waste land (khals) lying about the villages. This may be given in exchange for a suitable central place in the village 10 the owners with a little more compensation in cash or kind. Sufficient areas may be reserved for the school garden, gymnasium or the playfield.

A rural primary school building may cost about Rs. 2,000 to Rs. 3,000 including the compensation money to begin with. New wings may be built later on to meet the demands of new amenities. The aim should be to make a beginning however humble it may be, in order to lay firm foundations for future developments in education.

This could be done by floating loans repayable within ten to fifteen years by easy instalments of Rs. 25,30 or 33 per month from co-operative banks or from individual money-lenders. The school authorities would thus have to pay a little and only a little more than their usual monthly rent and finally have the additional advantage of owning the building after 10 to 15 years and doing away

with their burdensome recurring expenditure in the long run.

Similarly in the towns and cities the government may give rural lands in exchange for cheap central places. They may even select certain central areas for the construction of school buildings in the various parts of the cities and disallow any constructional work on the part of the individuals as an integral part of town planning.

Loans of Rs. 15,000 to Rs. 22,500, Rs. 20,000 to Rs. 30,000; and Rs. 30,000 to Rs. 45,000 would be liquidated within 10 to 15 years by easy monthly instalments of Rs. 200, Rs. 267, and Rs. 400 per month respectively at 6% interest.

There may be many industrial magnates or big landlords or other philanthropists who may lend school buildings in their own areas to perpetuate the memory of their ancestors with engraved foundation or corner stones affixed in them. There may also be, as there will undoubtedly be, many others who would offer to build magnificent school buildings on their own lands if they are only assured to name the schools after them, may be with the word 'Government or state or private' attached to them, e. g., if a certain Prakash Chander of Lucknow does this, the school or the building may be required to be named "Prakash Government High School, Lucknow", and so on.

It is capital to tap a!l such sources and exploit them for the sake of rapid progress and high standard that we would like to establish.

After all this way of getting a willing help from people is far better than squeezing money by taxation at least for such a sacred purpose.

### II MANAGEMENTS

Having established our foothold on terra firma and got a shelter in which to accommodate ourselves, the next thing for us to see is whom we should choose as our manager with advantage. Mr. J. Murray proclaims in "Teaching" that he is in complete accord with Mr. Panday who suggests that "The management of schools should be taken out of the hands of national capitalists and should be handed over to a body of teachers or those who are concerned with teaching".

Mr. Murray goes on to say in the same article. "This is about the best way in which educational autonomy could be introduced with a view to promoting true educational progress on the one hand and national solidarity on the other."

Does it mean that education should be reduced to the learning of 3 R's only?

Should we ignore the fact that different children have different individualities for the development of which we would do better if we secured the mature guidance of the various experts in addition to those who belong to the teaching profession?

Why should we deliberately shut our eyes to the fact that Birla and some other capitalists have given an effective lead to the country in matters educational, both theoretical and experimental?

Should we forget to produce full men, from our institutions, who are ready to take their place in the world and society which could be done easily if our managing bodies were fully representative of the various interests?  $( \ \ )$ 

Why should we not face the realities of life fairly and squarely and give our wards as broad an outlook on it as possible?

For the sake of experimentation, without which there can be little progress in education, it: would be nice if individual initiative and pioneer work at the hands of national capitalists and others, so long as they are there on the scene, be encouraged provided of course they do not conflict with the broader issues of the state. By denying them this right we shall be denying ourselves the benefits of their generosity and help in research work which we so very much need mobilising at the present juncture and hence can ill-afford to lose when stern poverty stares us in the face.

Besides, there is no reason why we should not agree with those who believe that the different interests should be represented on the management of the schools, if we mean to give an all round education. A typical managing committee of 7, 8 or 9 members would then consist of 3 or 4 representatives of the teachers or better still of the teaching profession; 2 representatives of the parents; or 2 representatives of the business magnates of the locality and if possible, 1 representative of the state services.

Even the Government institutions would do well if they invited local business magnates and parents occasionally in order to give boys the benefit of their mature experience by interesting talks or the like.

## III EDUCATION OF THE BEGGARS

There may not be any single person in the whole of our country who may not at one time or the other have

had the good luck or misfortune of having been embarrassed at home, on the thoroughfare or at any other public place of interest by one or the other of the many tribes of really needy or professional beggars.

Why should society allow such parasites to multiply and grow, is a natural or genuine question that arises in the minds of many.

I would rather put it the other way round, if I may be pardoned the impertinence, "Why should the state nourish such a society as forces its own members to beg for their existence?"

Who is responsible for their moral degradation, if not the society?

Couldn't their morals and morale have been strengthened through education which has unfortunately been denied them because they happen to be too poor to afford its cost?

Could not a slight re-adjustment and proper education have stemmed the mischievous tide of uneasiness and the constant feelings of insecurity which have so coldly swept them away from the very strong trunk of society?

After having witnessed, with some of my young friends, I cannot recollect where, a number of professional beggars coming one after the other sometimes in pairs and crying:

Bless ye, Grand mother; we are two. Give us two handfuls of rice.

# (2) (singing)

The rich are getting richer by leaps and bounds; Poor Kali Das remains unsoothed and uncared for. Four seers of rice and four seers of fuel.

Are to be got from four ladies.

( &· )

# (sings again)

The rich are getting richer by leaps and bounds: Poor Kali Das remains unsoothed and uncared for (with himself obviously addressing the ladies in the house).

(3) Comfort everywhere!.....you have been saved.......Have beaten them and devoured them all.....

One of them, yes, one of them still shows signs of life...

He may recoil upon you.....but cannot be.....

Yes, a saintly say is an insurance against demons.

Have saved you from the onslaughts of your enemies.

Shall get four rupees and a plateful of rice from you.

We felt disgusted and had a long discussion over it when someone said—whether it was true or not I do not know—"Mr. Aiyangar wants to pass an Anti-beggars' Act in Kashmir state and he has already begun proclaiming it. That is why beggars are dwindling in numbers day by day."

Certainly we did not see even a single beggar coming our way for many months afterwards till that shrewd politician, administrator, statesman and above all a gentleman Sir Gopalswami Aiyanger, the then prime minister of Kashmir, left the state service.

This is a sad state of affairs. Beggary should be abolished and made detestible by proper education and law should be taken as an auxiliary to its abolition and extinction.

The self-regarding sentiment of these people should be so stirred up that they will automatically abhor even a

single week's imprisonment even in the face of hardships that they may have to undergo in order to earn their livelihood with honest labour and the sweat of their brow.

I have a faint recollection of having read in some journals, perhaps in N. I. O., a survey report of the so-called Punjab Criminal Tribes submitted by a special representative who was appointed for the purpose, perhaps by Seth Birla.

Here again Birla, Tata, Dalmia and such other concerns could easily come to our aid and establish, after thorough investigations and survey not schools for shallow literacy but suitable small *Industro-wer ary* institutes which would make these unfortunate God-forgotten people literate, self-reliant, self-respecting, self-supporting independent citizens and thus remove the greatest slur from the fair name of our motherland.

# IV. The Education of Prisoners & Lunatics.

In the India-to be drastic changes have to be made in the confinement buildings, their organisation and administration. The prisons have no longer to be retribution or retaliation centres but deterrent reformatories as befits a civilized country.

In the premises of each prison may be built a class room or two as demanded by the usual numerical strength of its occupants. In order to accelerate the removal of illiteracy from our country every illiterate prisoner should be required to take class-room instruction for one period of at least thirty-five minutes duration every day in addition to his gaol labour which may or may not be reduced by this time.

Every constable on duty should be expected to work as a teacher for one period daily as a part of his routine work, the prisoners being taught in batches of twenty to thirty at a time.

The literate prisoners may be provided with such books to read as would raise and standardize their moral values in a reading room or in their own cells for a period or so daily.

Would it not also enhance their chastening process still further if they were also given the privilege of listening, no matter even if from their own cells, to radio programmes broadcast specially for them for an hour or so daily, as I had the pleasure of seeing it done in the local state hospital, when I paid a visit to one of my colleagues who was lying ill there, by the chief medical officer, Dr. Vaishnavi.

Would it not add also to the prestige of the government and the dignity of the prisons if more facilities than are obtaining at present were given to the political prisoners?

It is gratifying to note, if the news published in a certain issue of the Tribune be correct that the Kashmir Government have decided to convert the present lunatic asylums into reformatories. What kind of reformatories we do not know but would very much like to advocate reformatories of a type as suggested in a literary meeting by one of the two outstanding literary luminaries in the Kashmir State of the early forties of this century. Mr. K. W. S. Jardine, the then Principal, Biscoe Schools of Kashmir, wherein he envisaged lunatic asylums in cool

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have already been registered should be expected to uproot illiteracy from his staff labourers by providing for an hour's class room instruction for them on his own expense as a part and parcel of their routine work in the factory, may be in batches of 20 to 30 to suit his own convenience. For the rest of them who may be literate or semi-literate he may build a common reading room where each one of them could study every day en masse with others or again in batches of 20 to 30 whichever suits his convenience.

Unregistered factories, however small may not be registered until they conform to the above regulations.

In certain provinces or states, as in Kashmir there are some government owned factories (some of which are government monopolies)—which supply regular quotas of raw and other materials to big and small business men who could very easily be made to observe the above rule before they could possibly claim or make a demand for such quotas.

Needless to say that Mr. T. C. Wazir, the late chief director of Sericulture of Kashmir had also established a reading room in the Jammu Silk factory whose labourers were literate and probably two radio sets, one in Jammu and the other in the Kashmir Silk factories.

Special Adult Education officers, the inspectors of schools or any superintendents from the industries department may also be required to supervise or inspect this work.

One is certainly horrified to see a disgraceful lack of order or cleanliness in the Government offices—one feels ashamed to say in many Government institutions as well.

Visit a Government office and you will see lots and lots of bits of paper shamefully scattered here and there, the compound as shabby and flowerless as it could be and the walls or fences either in tatters or removed altogether.

The clerks or servants and officials alike in these offices work like beasts of burden or workers in coal mines who only know how to carry a load and no more.

Go to a common place industry and you will find the same state of affairs there

What aesthetic sense or the 'values of cleanliness and tidiness will such people working under these circumstances and conditions have developed in themselves that they can impart to their children?

Do not such parents make the work of teachers all the more difficult?

Should not such offices and industries have been models of cleanliness at least for others?

But though all this has been said it by no means implies that all the offices and industries come in this category, for there are many offices and industries under able officers where files are in a perfectly neat order and the court yards have lawns with well trimmed bushes and flowerbeds, where people are attracted to sit and relax themselves and where new life would come in weary tiresome eyes.

What these office people ought to do is to broaden their own outlook and widen their horizon which at the present moment does not go beyond the four walls of their offices.

Besides, these people could also do their bit in literacy campaigns by spreading literacy to their menial staffs too, if they did not run Adult Education centres as would have been magnanimous on their part and as Mr. Siyidaen expected them to do long ago with good intentions though unsatisfactory results.

# VI. Lingua Franca and the medium of Instruction.

Mr. Ryburn and others advocate the use of the mother tongue as the medium of instruction right from the elementary stage upto and including the University stage. Most surely we agree with them. Mother tongue is nice and should unhesitatingly be employed as a medium of instruction at least upto the senior basis stage beyond which it is circumscribed by certain limitations and handicaps.

After the senior basic stage or at the most the high school stage it may be justified in principle so far as it goes, but it reduces itself to a mere theory when it comes to actual practice in an uniquely multi-lingual-poor country like India. There are hundreds of dialects and languages in India and every such dialect or languages is the mother tongue of the respective boys of the concerned locality.

Does it mean that we should recognise all these dialects and languages as mediums of instruction?

If so, could we afford the unimaginable costs involved and the enormous time required for achieving our objective?

Doesn't this envisage the establishment of hundreds of universities on a linguistic basis?

If so, can such universities be expected to be self-sufficient and impart education in all the faculties—arts, sciences, literature and so on?

If not, wouldn't Indian education declare its bankruptcy before long?

Wouldn't such an arrangement lead to the disintegration and fragmentation of our country and shake and break asunder the already shaky foundations of its solidarity?

Granted that we can make a beginning, however humble it may be, can we expect its success beyond the elementary stage?

If now we eliminate and discard some of the dialects and accept the language of the simple majority of the inhabitants of a province as the mother tongue of the province, can we establish self-sufficient-complete in-all-respects universities in each such province, whether rich or poor, without bending and crouching under the heavy strain of its unbearable costs and eilorts?

Even if we do so, isn't the high sounding principle of the mother tongue being the medium of instruction' violated even in such a province?

If so, why should we object to violating it to our greater advantage on an all-India basis at the university stage?

If we fail to do this how shall we otherwise easily establish inter-provincial-cultural-educational links if we have separate provincial mediums of instruction?

What shall be our inter-University relations in that case?

Will the Indian Universities waste and fritter away their energies while working in isolation or will they pool their efforts and by working in co-operation march on and work for the common good?

Wouldn't lingustic differences in university education retard resesarch work of all types and adversely affect the advancement of the country?

Obviously enough many dialects and languages at least those which have no scripts of their own shall have to be ignored—the teachers concerned, however, being free to use the dialects of the boys in their expositions and explanations in the elementary stages as most of the resourceful teachers do—and the mother tongue of the majority used as the medium upto the senior basic stage as is being done already with the *lingua franca* of India, Hindi or Hindustani, as a compulsory second larguage.

In the high classes these may interchange their places so that the *lingua franca* may be the medium of instruction and the mother tongue the compulsory second language with English as an inter-national language for the selected few who may, as at present, have begun learning it from the middle classes.

The continental *lingua franca* should invariably be the medium of instruction at the University stage if we mean to live as one people without any fundamental distinctions of caste, creed or colour. Thus will the unity of India be preserved and its smooth going advancement be ensured.

If, however, the provincial language or the so-called mother tongue usurps the position of the *lingua franca* in spite of the deep and irrecoverable injury it will sustain or

cause on national aspirations and solidarity at this crucial period in the history of India, the scientific terminology may be adopted as such from the English language or a common inter-provincial-inter-linguistic terminology may be coined, as some would suggest, to avoid unnecessary waste and ensure an easier inter-university link at least to some extent and obviate or remove some of the many obstructions and difficulties that lay before and confront the research scholars and make their work anything but devoid of thorns.

Besides one cannot understand why any province should have any grudge against or any objection to the future lingua franca, approved so by the people themselves, being the common medium of instruction at the university stage in the face of the fact that they did not or could not have any objection to English which certainly played no mean a part in enlightening, elevating and modernizing India so very rapidly and that 80% of the school population are expected to go in for technical education after the senior basic stage with, perhaps, many others to follow suit soon afterwards.

True that the future lingua franca as a medium of instruction will be more difficult to begin with for certain provinces than others but though Hindi or Hindustani shall have to be learnt as the lingua franca of India from now onwards and as a medium of instruction in U. P. C. P., and similar other provinces where people are already conversant with it, it may require another couple of years or so before it is introduced as a medium of instruction from the lowest of the university classes i. e., from the

4th high class or at the most the F. A. classes so that in about six to eight years time it covers the whole university course in those parts of the country where people are not acquainted with it or are strangers to it. This easily conquerable difficulty should not be allowed to prove a hinderence or a stumbling block but should be surmounted by patience and perseverence. Will the people of Hindustan rise to the occasion and setting aside their self-interests, or petty feuds work for their own integrity in their motherland? Will they respond to the fervent call of their country?

Bharat Mata is in an agonising pain as her "heart has been broken though her body retained." So says Pt. Jawaharlal Nel ru.

Will the jewels of India Birla, Dalmia, Tata and others extend their generous hands to heal her wounds?

Will the common man extend his intellectual or muscular grips and grasp them warmly?

India reeds a lingua franca—a language that is known to a great majority of Indians with the best choice.

Will they set up an effective machinery that will translate print and publish all the existing works on arts. literatures and above all the modern sciences into that language?

Birla brothers have started something like that and if it be true some others may work separately or in co-operation with them. They may set up their own separate committees and machinery for the same purpose but they should supplement Birla's work and not overlap it and should do so in a single common script and language that ands stronger affinty for the majority of Indians if they mean to do a real service and work for the same goal—the unification and betterment of their motheriand.

# VII Religion and character.

"Where the mind is without fear and the head is held high;

Where knowledge is free:

Where the world has not been broken up into fragments by narrow domestic walls;

Where Words come out from the depth of truth:

Where tireless striving stretches its arms towards Perfection;

Where the clear stream of reason has not lost its way into the dreary desert sand of dead habit:

Where the mind is led forward by Thee into everwidening thought and actions;

Into that heaven of freedom, my Father, let my Co-

# Rabindranath Tagore.

Sectarianism and ritual religion, as rightly pointed out by many has eaten into the very vitals of India and rotted its whole fabric. The personal factors of the interested neople have succeeded in extinguishing the broad religious principles and humanising factors and exciting the brute in man to their advantage.

The fanaticism thus unlashed has created a cleavage and disruption in the Indian Society and brought about a bitter communal disharmony and the consequent massacre in its wake.

All this had its seeds in the communal award and its progeny which on its birth was strongly opposed by Mr. Jinnah but accepted by the Indian National Congress!

But, however, it is never too late to mend. The wrong done can be righted. The Indian Society can be so constituted that there is no Hindu, nor Musalman, nor Sikh nor Christian but one compact society, the Indian Society with all its individval religious feelings and freedoms nourished by strong common ties, the human ties and held firmly together by unbreakable bonds of nationalism and internationalism. This may be effected by harnessing the whole educational system to that end and by stressing the civic side, whether clear or implied of all religions and nourshing not only unshakeable tolerance but also the strong human affinity, goodwill and a strong sense of independence as well as interdependence.

Such a system should aim at making the execution of all 'right actions' almost instinctive in man by so arranging things and creating an atmosphere of perfect uninterrupted freedom, right from the very beginning of education. Right from the start the future Indian citizen should be 'well seasoned' as some one says, in body, mind and soul.

He should learn to withstand distress and suffer hardships with good cheer, if and when they come his way. Working upto the religious ideal of "understanding other men's point of view and treating others as one would like to be treated oneself," he should be ever ready to help others in any and every circumstances. He should be trained sportsman in word as well as in deed. Above all

he should develop a good moral character which cannot be done at any particular age or time but throughout life. In fact character of a person may take shape or form in his childhood which forms a strong foundation on which to build later. Hence the need of the proper atmosphere, good tone, long and short trips and camp life in schools.

Whereas the new spirit in Education envisages that there should be no beggary whatsoever in the state there vill undoubtedly be many chances of rendering first aid to the injured social service, help at religious and other functions involving the congregation of concourses of reople restoring lost property to the owners, helping the weak showing kindness to animals, life saving and so on and so forth.

They will be doing social service if they cause the good of any human being or animal by moving the state as a whole to some such actions e. g. they may succeed in making the municipalities in their own localties fix small stone basins instead of solid stones within the cemented areas of the public taps just below the bib cocks so that some of the wasted water may remain there for some-time afterwards and provide a welcome avenue for birds and other animals to quench their thirst there.

#### VIII. Research and Reservation.

Whereas the new spirit in education offers an equality of opportunity to all those who can benefit from higher education irrespective of caste, creed or poverty or aristocracy or colour it at the same time does not or should not stop or restrict admission to those apparently less intelligent ones whose guardians being better judges of their

wards and willing to pay for their higher study as advocated in the Sargent Scheme For haven't we got many examples of boys faring poorly in their middle and high classes and securing a III class pass in Matric Examinations but showing marked progress and even shining far above par in the college and thereafter and vice versa?

To initiate and encourage competition and efficiency the higher Govt. services should be given on the basis of merit and no other considerations, more so in the education and Research Departments if real public good is the aim.

What can a poor intellect do or attain in a higher form of research work if we reserve a place for him and push him forward at the head of a genious?

Wouldn't that be a sheer waste of public money and disregard of the public good?

To keep selection above corruption, fully representative competitive Examination boards may be constituted which will arrange for such competitive examinations, appointing examiners as far as possible from outside the provinces and preparing the final results.

The need of special representation or reservation of seats which brings in much heart-burnining and bitterness will thus be obviated for even the humblest of Indians, be he what and where he may, can rise to the highest rung of honour and status that his merit not birth may enable him to do.

#### IX. Physical Education

Physical education in many of our schools is taken as a necessary evil and so is carried on in a most shabby and leisurely manner. A strong body is almost as essential, if not more, as a strong mind or a strong soul more so because a strong mind or a strong soul cannot dwell in a weak body. Physical education to improve physical strength is as important a subject as science, Mathematics or any other subject of the school curriculum and should be taken as seriously as they.

Physical and intellectual work in schools should be so adjusted that each gives a wholesome relief and stimulous to the other and not that each should encroach and fall heavily upon the other.

Physical culture, as social, scientific and other studies, should also begin from the lowest classes and develop more and more as we proceed higher and higher but it should by no means mean that it should also advance at the same rate but simply that it should become only a little more strenuous in higher stages to suit the stronger muscular needs of the boys. The aim throughout should be to maintain a right proportion between rest, exercise and sleep in order to maintain proper equilibrium of health.

Excursions and outdoor camp life form a part of physical educational programme in addition to P. T. Gymnastics, out-door games and asquatics.

It is in open air camp life and one or two day hiking or treking that a boy learns to be self-reliant, self-supporting, generous. compassionate, social and sociable and

helpful and gets a foretaste of the realities and hardships of life. In short occasionally well supervised and nicely organised out-door life strengthens his character, broadens his vision and develops his outlook.

### X. Denominational Institutions.

In the Dec. 1945 issue of 'Teaching' Mr. D. K. Hingorani says, "And our education should teach the child to transcend the barriers of race and religion. To that end communal and sectional schools should as far as possible not be encouraged."

We quite agree with Mr. Hingorani in this and would not oppose any proposals of withholding of grant-in-aid by the Govt. to such of the schools and colleges as would not refrain from and discontinue any active promotion of class, colour or communal hatred on their part.

At the same time it will not only be not useful but will be positively harmful to the people and the Govt. alike if the latter decide to take over all education directly under their control expecially at the secondary and higher stages.

Education no doubt is a Govt. concern and should be carried on under its strict vigilance and patronage in the matter of curriculum as well as broad principles. It should not only encourage but be proud of helping private enterprise, if only to a limited extent regarding their number, to foster and develop the spirit of research and experimentation in education by very liberal grants-in-aid extending at least upto 50% together with corresponding increase in P. F contributions and other grants.

Such institutions should enjoy perfect freedom in internal administration and experimentation so long as

they conform to grant-in-aid rules and regulations and do not conflict with them.

The state should no longer look on aided institutions as easy-go-along-economy institutions but generously helped, carefully watched, substantially financed and effectively guided free experimental laboratories with the greatest possible freedom afforded to their managements and staffs and decently lucrative jobs for their workers.

#### XI. Transfers and Corruption.

Teachers form the backbone and brains of all teaching and directing and unless they are carefree, respected and happy education reduces itself to a slovenly affair.

As the time and efficiency demand there are not to be any haphazard transfers at any and every odd hours of the year depending on the whims and vagaries of the authorities. This licence of effecting changes irrespective of their negative and even detrimental effects on the staffs and students alike leads the officials and others to corruption, which kills the soul and robs the mind of its peace, and the consequent misuse and even abuse of the authority invested in them.

All transfers should be effected at a fixed time of the year of course with special provisions for emergency cases, that suits the administration best and yet does not do harm to the taught. All such transfers should be made according to some set plan so that every body may at least approximately know it in advance as to when and where he will be posted next and arrange the purchase or sale of his necessities and surpluses accordingly.

His excesses may be purchased by the institution and his urgent necessities at least be arranged for by the authorities of the place of his transfer. This will comfortably dispel his fears and remove his difficulties and thus ensure smooth going of all sorts of routine as well as administrative work and thus his transfer will no longer be a nightmare for him or interfere with his work.

This will leave the inspecting authorities more free to carry on new ideas and experiments from school to school and thus enthuse and inspire the staffs with nobler ideals and better standards of work—the most important and yet the least cared for aspect of their duty which the inspecting authorities, under pressure of maladjusted routine and administrative work, cannot but respect more in neglect than execution.

#### CHAPTER II

## 2. Practical Suggestions for the Training of Teachers

An article full of constructive ideas.

-Editor Teaching.

The Sargent Scheme recommends the practice that is in vogue in England according to which intending teachers are given opportunities of visiting other schools and trying their hand at actual teaching during the last two years of their high school course.

But would not that interfere very seriously with those academic courses which give them a broader knowledge and outlook on life? Should not the educators have a far wider mental outlook than their pupils? If they fail to pass their matric, can their knowledge be considered adequate for their work?

Since they are the men responsible for a better world, their foundation should not be shaky. They must be fit emotionally, academically and technically. It should be obligatory, therefore, for them to be matriculates at least.

During their years in the high classes, however, they may be encouraged to widen their mental sphere by joining some school associations and clubs, where they may deliver speeches on scientific or other subjects of everyday interest, illustrated by maps, charts, drawings on the blackboard or by actual experimental work, or by drawing illustrations on a long piece of celluloid and projecting them on a screen by magic-lanterns of their own

making \* This will direct their superfluous energy into useful channels and sublimate their instincts, thus helping to bring about emotional balance.

At the end of the final examination, candidates suitable for the profession may form two groups, one of those who intend to join the profession forthwith, and the other of those preferring to prosecute their studies further. The former may now be engaged in actual teaching in their own schools and in visiting other schools under the guidance of their headmasters during the period which elapses between the time of the conclusion of their examination and the announcement of the results. This will serve a number of purposes: first, it will engage the boys in useful activity rather than allow them to loiter about in their leisure time; secondly, it will give time to sift the doubtful cases; thirdly, it will not waste any time, money or material of the unfit, but will leave them as free as any other members to join a college and prosecute their studies still further or to take up any other profession or training at the right time with others, and thus will, it is hoped, satisfy Mr. Saiyidain, too, who would 'weed out' the undesirable or unfit cases even during the period of their training, no matter even if it involved the risk of an 'occasional miscarriage of justice or some financial loss.'

The selected candidates may then be given a pre-training for about a year, of course with a stipend, during which they may learn some tricks of the trade, obtain an insight into school management and organization and get rid of their natural shyness. After this they ought to

<sup>\*</sup> The Punjab Educational Journal, May 1943 and July 1944; and Teaching, September 1944.

receive the actual complete training in a training school for the period mentioned in the Sargent Scheme.

The provipoial certificates of the second group mentioned above for admission into the colleges should be accompanied by character-sheets recording their mental, physical and moral progress at school, with a column for special aptitudes. This ought to form the basis of their character-sheets in the college. The intending teachers at this second stage ought to be given a chance of trying their hand at actual teaching in the vacation after finishing their examination and until the results are out. The same process may be repeated with both would-be graduates and undergraduates.

'The training college, which is meant exclusively for graduate teachers, should normally provide a year's course, but facilities may also be provided for those students who wish to conduct research or pursue special lines of teaching after the completion of the year's course,' says the Sargent Report. According to this the training is to be given after graduation. But, considering the importance of the teaching profession, this period is inadequate, since the intending teacher, who has no background at all of the professional requirements, has to master the science and art of teaching, besides having to study such important and difficult subjects as educational psychology and the history of education.

There are some who suggest that education should be included as a subject in the degree course, and that it should take the place of philosophy. Now since the students will take this subject in place of mathematics.

science, history or the like would not their mental horizon in these academic subjects be limited and circumscribed? And if the subject is substituted for philosophy, how many students study philosophy? I ask. Could that satisfy our need?

I suggest that the training should be extended to three years at least—one year's training and two years' pretraining. This may seem to be too ambitious and revolutionary a suggestion. But, no; this will be in the long run more economical and more lasting in its results both for the Government and the teachers.

When the selection has been made after a student has completed his degree examination as suggested above, he may be admitted into a school for two years for pretraining as a member of the permanent staff. During this period he may be required to study the theory and practice of teaching and the principles of education, in addition to the special subjects he intends to teach. He should also conduct class lessons which may be supervised and improved upon by the trained graduates of the school staff by turns. This will bring the former up to the mark and keep the latter in touch with modern developments.

The candidate may further be required to study a good book on school organization and management with practical guidance from his trained colleagues, who may divide amongst themselves and take by rotation all extra duties of school organization and management. He must also take part in compulsory games and other physical activities, of course with due regard to rest and exercise. All the eligible members of the staff will thus have a

chance of holding the so-called posts of honour in the school, and thus the mutual goodwill of the teachers will be ensured and maintained besides affording a practical training to thier prospective colleagues.

The inspectors may be required to make a special note of this work in the school log books and the candidates asked to produce their lesson notebooks, etc., with the remarks of various supervisors, besides a certificate signed by the principal or the headmaster, and the Inspector of schools of the corresponding district. Of course as some suggest the number of candidates for each district may be fixed, to avoid overcrowding and to facilitate admission to a training college. The problem of pre-training selection will be completely solved by this.

#### Refresher Courses.

As is being done in some progressive schools, each school may arrange bi-monthly criticisms lessons conducted by some of its prominent teachers in rotation, which should be attended by all the staff and discussed soon after they are over in the light of modern tendencies and developments. These will all serve as model lessons for the untrained teachers. This may also be supplemented by yearly criticism lessons and other technical deliberations and discussions by the selected teachers on an inter-school basis in each locality. Occasional refresher courses will be needed in order to keep the teachers of isolated villages up-to-date and to bring about a better co-ordination between the theory and practice of teaching. The other teachers will remain fresh and enthusiastic with the monthly and bimonthly criticism lessons and discussions.

## Social and Emotional Training.

We cannot expect a child to maintain equilibrium between the conflicting ideas that are constantly whirling up in his mind until his crude instincts and complexes have been sublimated and transformed into sentiments and finally into the self-regarding sentiment.

For this we need a doctor in a teacher. But doctors who have been brought up in an atmosphere of stress and strain and in a state of nervous tension may concentrate on the body rather than on the mind of their wards, the pupils, and thus may develop certain traits of emotional instability which would cause the destruction of all cultural and educational background. The teacher himself should be a cultured and an emotionally balanced individual. Hence the necessity of pre-training without the hurry which would result from only one year's training. Hikes, scouting and camp life should form a prominent feature of the period of pre-training. The trainees may be required to organize camps in various places for a week, or go out at least once a year for that period, pitching their own tents and arranging their own scout games and so on. No two members should be allowed to join the same group and occupy the same tent on the various stages of their trip. This will inculcate a spirit of accommodation in any group of diverse aptitudes and temperaments and develop their social qualities and thus stabilize their emotional equilibrium.

#### In the Training Colleges.

A more intensive rehearsal of the items of pre-training should be recommended, and educational tours to pro-

gressive schools all over the country. A more serious and exhaustive study of general and professional subjects should be stressed. In the case of graduates a scheme and programme of work and examination similar to that followed in the Punjab may be adopted.

Additions to this may be some dynamic debating societies and dramatic clubs in the training colleges, where it would be obligatory for all the trainees to become active members. The finishing touches will be given to their cultural and emotional background and stability in this way. Encouragement may also be given to the teachers in these training colleges to utilize their leisure in hobbies.

For a more effective correlation of the various branches of knowledge, the trainees may give two or three lessons each on two or more subjects in addition to their special subjects.

By then the training college professors will have found out the candidates who could be benefitted by carrying on research work or by proceeding for further training abroad.

#### CHAPTER III

# 3. Some Educational Experiments and Experiences

#### (A) Juvenile Truancy and Theft.

(The central figure and all the other personages under this sub-title shall appear under assumed names to avoid putting them under handicaps in their future dealings lest the person be placed in prejudicial surroundings and forced to relapse into his previous attitudes towards home and society.)

They say, "Prevention is better than cure" and since prevention cannot be effected without a previous knowledge of the predisposing cause of the disease, malady or a certain state of behaviour, I propose giving a full history, as I recollect it after all these years, of the case under discussion before mention is made of his reformation or cure, with the hope that it is read in that light and spirit.

Mr. Baghbehari, the central figure of this description was a boy of average intelligence who fared well in every thing including the examinations upto the upper primary classes.... the time whence his deterioration started.

Meanwhile his mother died and he was left to the care of his grand-mother, matric plucked uncle and aunt, and his fourth or fifth primary passed father who experienced an immense stress and strain due to his suppressed emotions at his wife's death and tried his best to marry a second time. However, the stern face of destiny grinned sternly at him and repulsed him to quietitude and servile

were thwarted and repressed and found expression in undesirable channels and attitudes towards his son. Some how, something or somebody made him believe that his son would get a decent job somewhere provided he matriculated.....which he probably thought would pave the way to, and open new vistas and prospects for his son's marriage which, he feared, otherwise might meet with the same fate as his own.

With this end in view he expected his son to be always studying in the morning at home, at school during the day, and again at home after school till he slept late in the night.

No games, no chit chat and no dilly dallyings were allowed.

A slight deviation from this daily programme of work would atonce provoke his anger and prompt him on to give his anger and prompt him on to give his anger and prompt him on to give his son a thorough beating, nay, a sound thrashing so much so that his sobbing shrieks and cries and yells would harshly resound within our hearts and echo forth tunes of pity and sympathy for the poor helpless child.

The words, "the poor wretch has lost his mother" would gush out automatically, unquestioningly and unknowingly from our mouths. These words are far more pregnant with meaning than we care to think of.

The boy's issueless uncle and aunt and the grandmother would no doubt always come to rescue him from such repugnant, nefarious and heartless on-slaught but though they always soothed, comforted and consoled him after these incidents, the harsh, though of course with good fatherly intentions, treatment towards the boy knew no bounds and limits, as the same tale of woe continued to be repeated week after week and month after month.

His good uncle with real fatherly affection came to pay his dues at school every month, coached him himself at home and the boy also plodded on well till he came upto second middle class when, after the long incubation period of about two or three years, he began to show his first symptoms of blunted imagination and averse feelings. This was precisely the time when I was transferred to that school though of course I had nothing to do with the boy there.

His uncle now often came to me with one complaint or the other against the boy and his behaviour and lo, I got opportunities to make counter complaints—the uncle received unexpected and quite revolutionary replies indirectly at first but directly afterwards as we became more familiar and as I saw that he did not tell his elder brother brother that I held him responsible for spoiling his own son.

Time and again he came and time and again I changed my attitude and sometimes preached what may as well be called sermons which I could well understand could only convince him at times but not always—yet however, I got a foothold not with a deliberate object of starting an experiment but because his unconscious invitation to interfere beckoned me to start on my unconscious experiment; unconscious for him because he did not himself know and does not know it even now, I am sure, as he simply wanted the boy to change which he did but which

the uncle did not expect he would do so soon; unconscious for me because I simply did what I felt I should do according to the exigencies of the time at the different moments and said only what I had to say in reply to their, enquiries or entreaties, should one call them, not at all having the slightest notion of what would happen or what turn the events would take.

The uncle's visits become more frequent towards the annual examination as he was not hopeful this time about the boy's success when I plainly and in unequivocal terms told him that I had nothing whatsoever to do with the examination results, and even if I had I would strongly stand against his promotion if he did not pass by his own merit for his own good in the long run. This I am glad to say he took in a sportsman-like spirit, though facial expressions betrayed repugnance at what I had uttered.

My forecast about my having nothing to do with the examination results did not come true and when I was called on to help one of my colleagues, who had already made all the entries of marks in the register, in preparing standards and completing the results for the approval of the staff, the Head Master and the Principal, I found that the boy had got marginal marks and so he got through.

A tutor was now was now engaged for Baghbehari but though the father's beating intervals became longer and few and far between, his rebuking and bullying nature showed itself every now then. He made all his choices and all his purchases for him, and anticipated all his needs and perhaps also thought a great deal not only about but also for him. And so he brought him one note book of thin plain

paper for his Drawing exercise book which was surely unsuited for the purpose. His Drawing master naturally insisted on his buying Drawing exercise book with thick large sized paper, failing which he could not allow the boy sit idle in the class and later he turned him out of his class in default. Bagh Behari had no say at home and so he carried on without this notebook till at last he began playing truant in this period.

In addition to the uncle, the father now also began coming to my place with his complaints and receiving in return my courteous and mild retorts. From these he only felt that, as I myself also shared his feelings to some extent, I had much sympathy for the boy but that my approach to the problem was unscientific and entirely wrong. He often quoted how he and all his school follows in the olden days were dealt with by their revered teachers and parents, and that he was proud of the best education he received at their hands.

Fortunately or unfortunately he did not know that I did not follow a scientific approach to the problem but only expressed my human feelings for the boy, for I considered everything as casual dealings which had no experimental or educational value at least for me then.

And as the father showed definite and marked signs of the lack of confidence in the boy's worth or potentialities and would not trust him with anything, much less with money, he continued his usual treatment of the boy who began to form associations outside his home and perhaps at the same time outside his school as well.

Consequently he failed to pass the annual examination and in the spring holidays went to his grand-father in a village about 14 or 15 miles away. He remained there even after the holidays and would not and did not return for about a month or so more, after which he had to be brought up.

He went to school wherefrom somehow or other he managed to escape a few times after the roll call and many times, although he left home for school, he would not attend at all. Whenever he attended, he became restless for obvious reasons and showed signs of naughtiness and maladjustment.

He gave vivid indications and showed a clear inclination to attend games and other outdoor activities but his overanxious guardians stood in his way.

During school time he went to Salam-ul-Daula's where he tamed pigeons and in order to own, feed and house them he stole lots of rice from his home from time to time, which act was not brought to light in time by his grand mother as he was the only child in the house. In this he found the most secure way of passing his time in peace and without detection, for he sold or gave away his books several times and did not steal anywhere else than his own home.

I informed them of his absence from school every now and then and at last brought them a slip to that effect from the school.

When our familiarity grew I went to theirs.

Father: "Look at your boy, he wastes his time doing nothing. I do not see him working at home any time.

Don't you give them anything to do there? He is always seen playing outside. I have told him that I shall keep him in rags if he fails this time but shall give him a nice suit to wear if he passes. Besides, if he matriculates he shall get a nice job in my department as I have been assured by my superiors.

Look at his note-books what he has done. Even the scanty work that he has done has seldom been shown to his teachers. He always tells me that he has to attend the games and to go to this place or to that. I do not want to send him anywhere. I report to teachers and they say he is not regular.

If he does not come round I shall take him to my workshop where his stiff bones shall melt under pressure of work and bring him to his senses," and so on and so forth he says—and all this in the presence of his son.

Knowing that he led an outdoor life himself and because—I do not know why and whether rightly or wrongly—I felt sympathy for the boyard said, "What do you do when you work strenuously for the whole day, at your office?"

Father: I take a long walk home, have tea and then rest.

I: What do you do when you work at home on a holiday?

Father: I move about and go out for relaxation.

I: Don't you think your boy also needs relaxation after a whole day's work at school? Let him also have a free time for play after school.

Father: But I pay lots of money to his tutor. He has to learn from him after school.

I: Good. You know your boy well. He cannot serve two masters at the same time. Could not his tutor adjust his work with the school and make him revise only those lessons which he reads there? Couldn't you also ask him to come an hour or so later than his usual time so that Bagh Behari may have just sufficient time to refresh himself in play before setting himself to work again?

The father is not convinced.

I: (Turning to the boy) Why do you not do your school work?

Boy: I have not got books and note-books.

Father: I brought all note-books for him. Let me see if any are filled up, I shall buy them immediately. Name the book that I have not bought for him?

I: Yes, what have you to say to this, Bagh?

Boy: I haven't got the Shalamar Reader, nor exercise books for drawing and grammar and composition.

Father: But the book is not available in the market; I brought you the drawing and other exercise books. Haven't I?

Bagh Behari: The note book you mention consists of thin small sized plain paper not suited for drawing which must have thick and large sized paper. I have got only one note book for English which is used for translation, whereas another is needed for grammar and composition.

"So then Bagh Behari is not at fault," I retort, and we drop the matter there, after the father has promised to buy these for him. Next time when I go there, I find the boy sitting in one corner of a room which was lighted perhaps by a 10 C. P. lamp, at his desk.

"You devil of a boy, why do you waste time doing nothing?" shouts the father after I have seatedmyself near him under the lamp. The boy hangs his head in shame and pretends to read.

"Be calm, please, and let us see what the newspaper, says." I pass on the vernacular newspaper that was lying there to the boy's father and expect him to read it for me and for himself. He picks it up, looks at it and says, "We have very dim light and I cannot read."

"We are directly under the lamp and still cannot read this bold print, what do you think your boy must be doing there?" I retorted. "Are not you encouraging him to deceive you and at the same time injuring his eyes?" I added; upon which the father felt for the boy and promised to buy a good lamp for him allowing him in the meanwhile the use of a Kashmiri lamp in addition to the one that was already there.

Later on in response to our note and in order to pay his monthly dues as usual, his uncle came to school; and finding him absent returned home. I had been told by some of the school boys about his pigeon business and after a search the uncle found the boy hiding in Salam-ul-Daula's home with his pigeons. I was horified to hear this.

Somehow good sense prevailed upon his father who, of his own accord, brought his pigeons home and allowed him to tame them there fixing a nice perching pole for them in his building.

Out of regard for me, they allowed Bagh Behari to go to the market sometimes for me, believing at first that, as they did not trust him themselves, I did not trust him with money but simply brought things myself and sent them home through him. I forgot about their feelings and apprehensions about him, not deliberately but as a matter of course, trusted him with money to buy things for me. I would keep even a five or a ten rupee note with him for a night, if he told me that he would buy the things on the following day.

Once his uncle cautioned me for keeping my money with him lest I should lose it; for, he said they would not trust him even with his school dues which, he added, were paid personally by him or his brother.

I: "If you buy all things for him yourself wherefrom shall he learn to transact business in future? Besides, if you do not trust him with even small amounts of money, how do you expect him to trust himself or be trusted by others? However, I trust him with my money and I would not mind if he loses it any time."

In this way I incidently counteracted their wrong attitude towards the boy who found his ego flattered and self-respect honoured and assured by me. He was now trusted with paying his own dues many times though enquiries about its payment were unflinchingly made from me at home.

Bagh Behari retraces his steps and moves on to the path of reformation but suddenly and accidently relapses into his previous self, catches hold of a duck on the roadside, gets it killed and cooked in his neighbourhood when

its owners search for it and the whole secret get wind and is brought to light. He is called a "Duck thief" for a time in his mohalla and though he got natural revulsions, and convulsions at the very idea of his misdeed and never repeated it, as his behaviour for the last couple of years shows, yet he was suspected whenever a duck was lost for a few months.

On my insistance, perhaps, Bagh Behari has been allowed to attend the games and other outdoor activities regularly. Finding that he was too big for B or C company in which he was placed and where he was a square peg in a round hole, I brought him to A team and allowed him to play there.

He was extremely selfish in play and would run after the ball with a vengeance from one corner to the other, and from one side to the other, playing rashly and wildly with impunity and hitting the ball hard, sometimes aimlessly.

To teach him to mind his own position and keep to his own side, I called everybody to his own side before taking a corner hit or a roll in more especially while-bullying at the twenty five yards line or at the centre.

His behaviour at the playing field showed marked signs of the ruthless suppression of his self-assertive instinct, for which he always and relentlessly showed his tendencies to play in the front line especially as the centre forward which I often allowed him to do.

More often than not, I had to shout at him to keep within limits and had sometimes to make him sit on one side to watch others play as a punishment which he often tried to avoid by being cautious.

Next he grew to be overcautious which tendency I lessened by leaving him a bit more free and playing myself on his side in the forward line and passing on the ball to him, till he gained confidence in himself and in others, and considered himself as an effective member of the group.

Once his class mates and he arranged a hockey match with the boys of another class for which every player had to subscribe an anna towards refreshments.

He demanded this sum from his guardian who accompanied him to me and said, "Bagh Behari demands an anna for games and I do not know what he means by this."

"Ah, why should you mistrust Bagh even for this petty sum? He would not speak a lie for nothing."

"Should I then give him an anna?"

"Yes, why not? Most surely you should."

And as he gave him the anna Bagh went off with satisfaction.

We had to do gymnastics every morning for fifteen or twenty minutes before the usual school time. In order to give boys some responsibility in school affairs and also to make them realize that our gymnastic competition with our other sister C. M. S. Schools was as much their concern and honour as ours, while presiding over a meeting of the "Monitors Council" once, I proposed holding a batch of boys responsible for making their other school fellows do those exercises in gymnastics which they did not know, before the usual school, time every day. This was taken with good cheer by the Council who offered their services for the purpose. But since the Junior

Monitors could not cope with the responsibility I proposed posting two big boys with each monitor and making each group of three so formed responsible for each day of the week. Bagh Behari was given responsibility of one of the six groups thus formed Bagh Behari's sense of responsibility was awakened and received an effective stimulus towards being regular in the school which, he certainly must have felt, he was honour bound to be. He worked earnestly at his job and was seldom seen shirking his sense of duty here.

While making preparations and arrangements for the school drama, I sensed his inner desire to show himself off and participate somehow but since he could obviously not be trusted with a part in the performance of the play I accepted his help in setting up the stage and then pulling off the curtains during the play. But though these and, may be, numerous other such insignificant incidents which I might have failed to recollect at this time are of minor importance as a matter of course, they did have their effect towards increasing Baghbehari's interest in the school and later at home too.

Whether due to our unconscious individual or united dealings with the boy or whether as destiny would have it, Baghbehari now no longer tames pigeons or sheep and no longer needs indulging in actions consequent upon such deeds if stealthily and hideously done. And though, he did not succeed in getting a promotion to the 5th High class having failed only in two compulsory subjects, he is devoted to his studies and school and I may add to his home too, for his home people have no more complaints to make now that the boy seems to have completely

reformed himself and God willing, shall not fail again to pass the examination.

Our School has again been divided vertically into four houses. Bagh Behari now also enjoys another place of honour as the assistant captain of one of the houses. He has also passed his 9th class annual examination according to the university standard and let us hope and pray that he will pass the matriculation examination also at the first attempt and with credit.

#### (b) Earth and Ash Eating Habit in Children

As soon as a child is born it manifests clear signs of the instinct of self preservation by sucking the teats of its mother or any thing else that is placed in its mouth. And as it learns to make movements, the reflex act of sucking is transformed into a voluntary action of sucking or eating when the child puts everything that lies about loose within its reach into its mouth showing a strong will to live.

Here the child may commence to learn distinguishing between the strong fundamental tastes approving and accepting those that are sweet or palatable and rejecting those that are bitter and repulsive to him. The mild neutral tastes may or may not be approved by him depending upon the back ground of the previous taste of the mouth. Lumps of earth or ashes which have no strong taste come under this category and may find entry into its mouth repeatedly a good number of times inducing him at first neither to like it nor dislike it but later the greater the chances that he gets of doing this the stronger and firmer will his preference and approval

for it become with the result that the child may get addicted to it and form an unrelaxable habit much to the anxiety and grave concern of the parent.

Prior to the description proper "precaution is better than cure "may safely be repeated here lest the old and well known story wherein" (1) a compassionate human being of the North was rewarded nicely with a treasure brought by a grateful swallow from her home in the South after its broken leg was compassionately nursed and healed by him in the previous season; (2) another greedy fellow, who repeated the same thing with the hope of a reward by first breaking the leg of a healthy swallow and then nursing and curing it was amply and suitably revenged and retributed by it the next season when it brought with it a terribly horrible and wrathful nest of hornets, wasps, scorpians and what not to his room to bite, sting and poison him to death," should suffer repetition and lest the old saying, "A stich in time saves nine," should find its place in the foggy land of forgetfulness.

Shanta Kumari is in the sixth year of her age now; her mother is overengaged in home affairs and her father is overengaged too. Probably towards the end of the first or may be, in the beginning of the second year of her age she accidently happened to taste a small lump of soft loose earth or a handful of ashes. The process unfortunately got repeated escaping detection a good number of times before it inevitably formed and consolidated into a detestibly unwholesome and injurious habit.

Shanta thirsted every now and then and drank lots of water. She got high fever in the evening a number of times every month, sometimes consecutively for many days and sometimes alternatively and would usually pass loose stools oftentimes during the day as well as at night, not of course giving up or foregetting her good habit of showing signs of uneasiness and crying to awaken her mother for the purpose.

Her face began to swell and show marked signs of pallor occasionally. This enhanced our anxiety, we became apprehensive and supervised her with more watchfulness. Nevertheless her mother had already caught her red handed several times eating earth or ashes, cursed her and bet her severely each time. The more she was beaten the more she was found guilty of the performance of the act. This worried her father very much and made him brood more pensively.

Why does not the child learn by doing and reform by natural consequences? he says to himself.

- "The child suffers from frequent purging, thirst, restlessness, high fever and what is more a goodly thrashing every time and still she does not change."

  He discusses with himself.
- "We lose ourselves in anger and punish the child who, poor wretch, does not know or understand as to why she is beaten or where her fault lay and in this way miss the substance for the shadow, for we only beat her and beat her suddenly saying nothing and without the least effort or endeavour on our part to make her directly or indirectly comprehend her fault. She

might be considering our sudden out-bursts against her as our second nature or habit and taking it lightly as a matter of course," are genuine thoughts which revolve in his mind.

He hits upon a plan and whenever he finds her eating earth he approaches her leisurely catches hold of her hand, instantly assumes an angry mood, lightly beats her hand and her mouth reinforced more by his facial expression and attitude than by his muscular action and finally washes her mouth. This he continues doing but never gives up, for he entertains mixed feelings of its efficacy and inefficacy at the same time.

The child's grand-mother suggests mixing something hot or bitter with the earth so that the child may get a sad experience with it and then give up her habit as a bad job. Her mother mixes powdered red peppers, a bitter herb, or the like with it but the child is perhaps intelligent enough to understand the mischief done as she still eats ashes though less frequently; may be, she may be trying to give it up, or may be she may be doing it stealthily.

Her habit of eating ashes is no longer our own limited or individual concern but it is now the concern of us all. Once one of our distant relatives who was himself a patient of the same disease in his own childhood came to ours and said, "I was myself in the habit of eating large lumps of earth every day and was perhaps suffering from the same troubles as she is suffering from at present. Do you know how I was made to give up my bad habit at once? Let me relate it to you. I was in the habit of eating yellow alluvial earth which the Hindus use for their

usual ablutions and cleansing utensils. This I used to get from one of our store-rooms in the house. My kind uncle was after me for this and used to beat me and punish me in various ways but I would not give up my habit. At last when he found the store house of my daily pill or two or more, he hit upon an idea and placed a handful of asafoetida which is just the colour of the yellow alluvial earth at the lower chink or sill or whatever you call it, of the door after having safely bolted it at the top just a few minutes before my usual entrance into the room. I could not open the door as I could not reach its top bolt and so I looked down in distrust when something yellow attracted my attention and notice. Very carefully I picked it up all and immediately it found its way into my foaming mouth. I left with joy to hop away to my hopping playing field when suddenly I was briddled back instantly as soon as I chewed my pills with an electric shock of the nauseating ennervating and painful experience. Copious tears trickled down my cheeks, my head reeled and I could not control vomitting out all that I had eaten.

Out came my parents and so on and took me in. They nursed me well and I was rocked to a sweet, sound sleep after that storm. I awoke quite a changed man with a strong dislike nay, a positive pasitive hatred of that grinning yellow earth. I have not tasted it since and have been always quite healthy uptill now."

There was much in what he said with certain limitations no doubt. (A) 1. Their relative was in the habit of eating only one kind of earth, the yellow earth; 2. He

was in the habit of getting it from the same place, and at the same time every day.

(B) 1. Their child was in the habit of eating every kind of earth and ashes which she got from the store or by scratching the floor of the house or the compound; 2. She got her thing from any where and at any or every time of the day.

This set her father athinking. He thought and thought and reasoning with himself evolved not a scheme or course of action but schemes or courses of action which he naturally expected his wife to execute, reserving to himself the right to administer the same sort of punishment which has been mentioned before and which he has said he never gave up till at last it was rendered useless when his daughter finally gave up her habit altogether.

#### What Her Father Thought

We cannot effect the remedy that Pandit Dina Nath has suggested. Our daughter does not come into that category exactly. We could, however, very easily avoid keeping earth and ashes within her sight or reach. In this way we could put an effective check to her temptations but this would not root out her bad habit, she could as well move down to those places where she could satisfy her need. We must therefore seek for a prohibitive remedy as well.

Is'nt it possible for us to cover the floors completely with mats, leaving a small uncovered space within easy reach of the child where we would keep earth or ashes with which any bitter and unharmful substance as peppers or a bitter herb or asafoetida would be mixed so that the

child may eat it whenever she likes and get bitter experiences. The location of this small open space or patch may be changed repeatedly and its contents too till our object is achieved.

No it cannot be possible in our house.

Let us at least have these bitter powders ready so that whenever my daughter is found eating ashes my wife may sit unsuspectingly by her and stealthily mix it with them every time. Yes, this can be easily done and I shall ask my mother too to look to it.

Can one relish sweets after one has eaten a heavy mean or when one's stomach is full? No, one shall definitely set aside even a delicious dish when one's belly is warmly packed up with food.

Isn't it because my daughter is not properly looked after or fed well because of her over engaged mother or through her sheer carelessness or negligence that she has taken to ash eating in order to satisfy her hunger in her innocent childish way?

Yes, I have several times seen her weeping for food and then busying herself in play probably without getting any response to her call for food. If her stomach is full every time which can be done by feeding her well and at proper times, she will not relish ashes and will give up eating them in future when she will grow to be responsible, rational and discriminating.

This must be done from today.

#### What Happens Next

Her father tells his wife what he has thought about and tells her to be careful in future after which, and as the child had already shown sure signs of improvement, she moves on from progress to progress.

The child is administered the deterrent mixture once or twice a day for about four or five months more, then only once a day and so on till she is found eating ashes again after an interval of about six months time after which she has not been seen doing it again for the last two or more years and thank God she is quite hail and healthy in her sixth year now and we fervently hope and pray that through the grace of that Almighty God she will remain so in future too.

Whether it was through one kind of treatment or the other, or whether through the combined effects of many of these or all of these treatments put together, that she gave up her seemingly unavoidable or ungiveupable or unrelaxable habit of ash eating we do not know; nor, do we care to know it or bother ourselves to know it as we cannot be expected to know it accurately from one or two isolated cases only.

However I give it publicity and record it here with the object of giving my readers an idea of how we could or at least as we think we could triumph over the bad habit in one case so that they may also find something in it to try it in their own way if they happen to get a similar chance and thus establish a definite course of action to be followed in these cases.

Note:—"Misery loves company" they say and it is interesting to note that once when probably worried by punishments or the like, the child mentioned above was found helping and even offering her small sister and definitely teaching her to eat earth in the presence of her cousin

of the same age and she was instantly reprimanded by her mother for this. The helpless child also ate earth for sometime more, got more severely attacked by Diarrhæa etc. than her elder sister. She was immediately attended to and has now almost given up this habit though she still, although very rarely, enjoys a finely powdered pinchful of soft ashes.

## 3. Found at Last. (In Third Person).

Prem Premi is a school master who visits his home before going to games. He enters his compartment to wait for a cup of tea and is visited by his two daughters and his brother's son all of whom are between the ages of 2 and 6 years.

Sometimes he feels bored by their childish chagrin and pranks which are as dogged as they could be. Often he wants to get rid of them somehow, as he wants to attend to one or other of his business, but he, she or they pursue him or stick to him as fast as his own shadow and are as unyielding, if not more, as that maliciously troublesome fly which recoils upon you and teases you and sits upon you or upon your sweet things as often as you drive it away with ever renewed vigour and determination provoking your anger all the time.

He would stand up and leave for the play-field but is embarrassed to see them not wanting to go out or leave the room. They grumble and touch his school master's heart when he has, though much against his conscience, to drag them out for he can ill afford to attend his duty late.

They got attached to him because he gave them good pictures and books to look at and enjoy for themselves, which symbolised him and the room began to have the value of a veritable lawn and pleasure spot for them. Hence the attraction for regular and frequent visits which interfered with his daily work, got good pictures and books torn out, and thus taxed him over too much.

"Can't they go out themselves and of their own accord whenever I may have to attend to some business outside home or whenever I want to be alone?" he said to himself. Time passed by.

Once it so happened that he suddenly stood up and while moving towards the door said," I am going out my darling, you keep in and see the pictures." And as he leaves and shuts the door or simply pretends to do so he repeats, "Keep in, keep in, my dear. I shall only shut the door and bolt it from outside."

To his surprise, contrary to his expectations he finds the child spring forth crying, "Me too, Me, too," as a chick runs after its mother and goes to seek its own food—food for his own mind or muscle-with others leaving him free to attend to his games.

He tries this method which he accidentally discovers with the children individually sometimes collectively when two of them are together and very rarely when they are all together; for, the efficacy of the method decreases with the increase in the number of children in which case he prefaces his words and action with the words, "Let us go out all together" and then repeats his first method if one or two children seem to ignore his second application

or appeal. In this way the school master has succeeded to counteract his own doing and make his children leave him of their own accord and thus found a way out of his difficulty at last.

#### 4. Are Children Reasonable and Accommodating?

(a) Rajkumari aged six and Phulkumari aged three once happen to have their meals together in the same plate in front of me. The menu is cooked rice, a mixture of cooked pulses with small rollers of lotus roots and fried chips of lotus roots. They get all these things in the first course, keep the rice and pulses as common property leaving each one free to eat as much as she can but divide the small rollers of lotus roots and the fried lotus chips equally.

They finish up their menu but Rajkumari has one lotus roller left from which Phulkumari bites off a portion.

In the second course they get pulses and four more chips of fried lotus which Raj divides giving only one chip to Phula and keeping the other three for herself.

I am silently watching what they are doing.

Sensing this Rajkumari fears public opinion against her, anticipates me and says, "I would have divided it equally giving her two bits and keeping the other two for myself but since she ate away a portion of my lotus roller I gave her only one bit. I am right; am I not?" She speaks out in a grumbling voice and keeps me mum.

Whether she understood all this or not Phula did neither grumble nor complain.

## 5. What Intelligence Quotient?

Rajkumari is in her sixth year and though she has impressed me many times before with her intelligence and silent wit when she was younger, I am sorry to say I have cleanly forgotten about these incidents and so am in a position only to relate two or three incidents which occurred in her present age.

What the environment which in no case, I am sorry to say, is favourable, will make of her in future only time will tell.

(a) Age 5 years 3 months. We went out as usual to the country side for an excursion during the summer holidays. There we were invited to dinner by a pleader a mile or so away from our camp.

As our way lay through a huge seasonal river where we had to wade through on several occassions and walk on a small track strewn with pebbles, thorns and boulders, I carried Rajkumari on my back for a long distance.

Next time we were invited to dinner by another of our friends in a village two or two and a half miles distant. In the very beginning on the smooth path Rajkumari began to show signs of laziness, lagged behind and complained of her sore feet and so on expecting me all the time, and asking me to carry her on my back.

"I shall not carry you You have to walk the whole distance. Mohamadoo will not carry you too. Why did you accompany us if you thought you would be tired? You could as well remain at the camp with your grand-mother. Couldn't you?", I retorted.

(b) Each of the above mentioned three children, as all the other children also do, possess and own something or the other in their own way and they are not in the habit of taking away one another's property and even if they happen to leave their things with any one of them they demand back or return as the case may be, these things by themselves and on their own initiative.

Only once or twice so far have they needed the pressure of public opinion to bear on them urging them to return things which they did not own and in which case their parents told them to do so when one party demanded vehemently and unyieldingly while the other party gave it back by throwing it on the ground either as a mark of protest or thwarted self-assertion.

(c) Narayanjee is yet another child of about five years age, who bullies, beats and dashes with all other children.

Once while playing with other children of the neighbourhood he teased them in all sorts of ways when all those children withdrew all at once in protest and began playing in the neighbouring compound shutting the door at him and bolting it from inside.

This hurled back the heavy weight of public opinion which impinged on him with such a momentum that he laid himself on the ground near the door weeping and crying and yelling and craving for admittance till at last at the request of his mother he was allowed by children to play with them.

Narayanjee no longer teased them at least during that play.

- Raj:—Didn't you carry me last time, father? Certainly I did. Don't you remember that all of us went to that dinner and we invited you too and so I carried you.
- Raj:—(Walking some distance more and after a long pause when I had, in the abundance of gay Nature, forgotten our previous conversation in a simple, low, pathetic tone).

Father, why did you not invite me today? You invited only Phula?

We did invite you darling; else, how do you think you could come with us?

Raj:—Then why don't you carry me on your back, dad, as you did on that day? You see there are blisters on my feet and I am carrying my own shoes.

All my logic failed me. I was caught and could reason no further. I was pleased too and so I allowed Mohamadoo to carry her after she had walked enough.

Age 5 years 8 months.

(b) I prepared a new cover for my old quilt and when after putting my quilt into it I slipped under it in the evening and addressed Raj "Look, what a nice new quilt I have!"

Quick was her retort too. "Yes, dad, you have an old quilt in a new quilt cover. Haven't you?"

Curiously enough, she has such a wonderful wit which I am afraid may not see its full bloom in her present environment.

Age 5 years 2 months.

- (c) I had brought milk in the morning when Raj was in the room and when I returned home after the school—she demanded a pice or an anna from me and got the reply, "I have no money to give."
- Raj:—"If you had got no money, then where from did you get milk in the morning?"

What can her intelligence quotient be? Can we arrive at it without giving her intelligence tests?

Phula Aged 3 years.

- (1) Once Phula was told not to eat curds while the other members of the family got it. She said, "Well you have also had it, why shouldn't I?"
- share almost every time it is prepared in the house, and it is prepared many times in this house. She is often reprimanded for doing so. Once tea was prepared soon after she had it. And when the tea was distributed, not getting a cup, she went into the kitchen, brought out a cup and fearing lest the cup should be snatched from her or anticipating a reprimand from her mother, she holds back and proclaims "I have also brought a cup, I have also brought a cup." And while she says this she examines the facial expressions of us all and waits till she is finally allowed and asked to come out and receive her share of tea.

Age 3 years and 1 month.

(3) Once her younger niece had a local cake (culcha) in her hand and somehow Phula got it from her. I saw a culcha in her hand and her niece none. I casually remarked addressing my mother, "Hasn't she (Phulla) deprived her (her younger niece) of her cake?"

I deliberately avoided naming either of them or pointing to Phula.

But Phula was sharp enough to catch the hint, however indirect it was, and retort equally indirectly, 'We shall give her (her niece) another cake.'!

Age 3 years 4 months.

(4) I was always angry with my children when they did not wear their shorts.

Once Phula had washed her kit and wore nothing. On my arrival, anticipating my anger she quickly said, "I have washed my kit and it is wet" thereby averting my anger before precipitation.

Age 3 years 9 months.

(5) Phula had just recovered from her illness and was sitting in the same room in which her elder sister was lying ill on bed.

Her cousin was suffering from measles in an adjacent room. I prohibited her going into that room telling her that she would also catch the diseases if she went there.

Quick was her retort, "My elder sister, (Bahaenji) is also ill, why do not I catch her disease here?"

I was in a fix how to answer her question but said, "Brother Kishenji is more ill and that illness spreads to other children while her sister's illness was not so serious."

What my statement conveyed to her and whether she understood what it implied or not she accepted my words and did not go there till her cousin recovered.

Age 3 years 9 months.

(6) After getting her early morning tea Phula was invariably made to wait for morning meals till I demanded it for myself.

So when at times she wanted to get food she would address me and say, "What do you want, papa? Do you want food?"

In this way she made me ask for food though incidently at proper times, and thus she secured her platefuls too.

#### 6. The Monitors' Council

With a view to associating the boys with the working of the school and enlisting their co-operation in working its machinery and enhancing what is termed "the tone of the institution", 'a Monitors' Council' consisting of the first and the second monitors of all the classes from I middle to high was formed.

On the very first day great enthusiasm was shown not only by the monitors themselves but by others as well especially the senior ones on the formation of such a Council. With great expections some other senior boys came to witness what we would do in the meeting and they were welcomed to participate.

While presiding over the deliberations of this particular meeting I explained to them the truth of what they say and what was the headline of our former "Boys Council" noticeboard too, "Our School is What We Make It." impressed upon them the imperative need of such a council and asked them as to how best they would like to associate themselves with the affairs of the school keeping in mind that the honour of our school is our own honour.

A good response was got in all that was ask-d for or expected from them. The aims and objects which were arrived at and approved by the Council may as well be relegated to the concluding paragraphs without suffering any loss of their importance in the subject.

As I have mentioned release, the pupils also now realised that gymnastics and other competitions amongst four of our sister—C. M. S. schools were as much their concern and honourly as ours and so to begin with six groups of three boys each (including at least one monitor in each group and one or two other senior boys proficient in gymnastics) were formed to teach and help all the other boys to learn those gymnastic exercises which they could not do. This was to be done for a few minutes before school every morning. One such group was expected to be on duty at the bars on one of the six days of the week.

It is gratifying to note that they proved worth their salt and very rarely needed reminding of their duty. Besides, only a few defaulters who were sent back from the assembly hall to do gymnastics and then run round the compound once or twice as punishment were reported by them. We are proud, as we should be, to say that our boys did their best and though the Upper School Gymnastics was entirely in their charge we were fortunate to get the second position having lost the first by a very narrow margin. It gives us a clear indication, therefore, that boys can be safely relied upon in many matters and with necessary supervision can do as much as we do ourselves, provided the responsibility entrusted to them is not too difficult for them, out of their ken.

Soon, in the morning assembly the monitors were seen standing up at their respective places keeping their class-mates quiet and orderly before any of the staff entered the school hall. No longer did one need shouting at the boys from the pulpit to bring them to order from the turmoil of the shouting shrieks and yells and whistles and howls which usually resound in almost every school hall before the entry of the school staff.

Three boys, from the senior-most class who had either radios at home or were interested in everyday news were selected to write down the important news on the school news board. Although I am pessimistic about getting equally keen and enthusiastic news-chroniclers, not to speak of better ones for some time more, it must be admitted that even they needed strict supervision if illegible and shabby writings were meant to be avoided.

An inspection of the school was made by the Monitors Council and objectionable and shabby writings, which certainly are comparatively very rare in our schools, were rubbed off. Such writings were catagorically discouraged even in the latrine.

Any sort of waste paper or the like which lay in the compound or anywhere else is picked up, when found, by every boy and put into the waste paper basket.

An Ostrich egg which was the only egg of its kind in the school museum and is a very rare thing to secure was broken by some boys. The matter was reported to the Monitors' Council, for investigation and disposal. I abstained from attending the meeting and asked the Vice President elected from amongst the boys themselves to con-

vene the meeting and submit a report of the proceedings and recommendations to me. To our surprise the culprits were very easily found out, interrogated and finally asked to pay a fine of eight annas each. Nicely they avoided meeting out "a tooth for tooth and a nail for nail" punishment to them and judiciously maintained the spirit of the punishment. And as it was a considerate punishment I submitted it to the Head Master for approval and orders. The Head Master approved it and sent it to the Principal, for information. The principal was pleased to see such a fair judgment given by boys

It is interesting to note that one of the junior-most monitors had lost his head and was regularly using bad language and rough methods in his dealings with smaller boys as he unfortunately happened to be an all-round good-sportsman in the technical sense of the term in our Primary School. His parents too complained of him, The senior monitors as also many other boys began to bring social pressure to bear on him to reform but when they found they did not succeed to their satisfaction they expressed a desire to disqualify him from his monitorship which he had got by fair election in the class. They were supported in their move and asked to give him a final warning, after which if he did not reform he would be disqualified and a new monitor elected in his place. After receiving the warning the said monitor seemed to have reformed appreciably and possibly may not need to be removed from his post of honour.

Bullying of children by the big ones which was already almost unknown in our school seems to have become extinct now let us hope for ever.

These and such other small incidents surely and unquestionably go a long way towards enhancing the good tone of not only all the schools and colleges but also of all the houses and factories.

Hence it is hoped that it will add to the value of the subject matter of the article proper if the aims and objects of the "Monitors' Council" or the resolutions passed in its first meeting are given here. They are the following:—

- 1. That the monitors body which represents all the school students be henceforth called the "Monitors' Council."
- 2. That the monitors as also all the boys should associate themselves in maintaining discipline and enhancing the traditions of the school.
- 3. That the boys should develop a keen sense of self respect and a sense of honour for their superiors and the school.
- 4. That a spirit of active co-operation in all kinds of constructive work be inculcated amongst all the students
- 5. That each class as a whole under the leadership of its monitors is responsible for the upkeep of the cleanliness and discipline in the class room and elsewhere.
- 6. That the monitors should not only keep the classes quiet and orderly in the class rooms in the absence of the teachers, if it so happens, but should also keep the boys as also themselves actively engaged in some writing work or keep them busy by engaging them in oral examination of the previous lesson or lessons.
- 7. That the monitors will henceforth see to it that the boys do not spoil the school walls, the school furniture

or the like by drawing any pictures or writing any useful or useless things on them.

- Should see to it that they do not throw any waste paper or the like in the class rooms, the school compound or anywhere else except in the waste paper baskets provided for the purpose
- 9. That the monitors should also see to it that the boys are quiet and orderly as soon as they enter the school assembly hall or gather together anywhere in or outside school premises no matter even if there be no teachers with them.
- 10. That the monitors as also all the boys should see to it that no boy uses abusive language in his dealings with his school or class-mates or even any outsiders, for the matter of that, but that every body tries to behave in a dignified manner and a cultured way on every occasion.
- 11. That the monitors as also all the boys should see to it that none of their class mates wanders with any outsider or outsiders whose conduct is questionable.
- 12. That atleast six monitors and assistant monitors together with at least six or more other senior boys should form six groups of three each and each group should be on duty at the parallel and horizontal bars on each day of the week by rotation and make boys do gymnastics.

To conclude let me point out that the formation, of a representative body of boys such as the "Monitors' Council" is sought with a view to establishing and consolidating the right kind of conduct, behaviour and mode of action into a second nature or habit in children from the very beginning so that they may take firm roots in the fertile soil of the pupils' brains and grow into stout and strong plants which stand firmly at their place; aud correct those who may have gone astray.

Note: The monitors council is now no longer functioning since the re-establishment of the house cum-class-system in our schools from the beginning of this school year.

### 4. To Parents and Teachers

A child is born without any knowledge of what he has to do in the world. His parents feed him and rear him in the hope that he will be a pleasant companion all their life and perhaps a supporter in their old age. Naturally, therefore they take care of his health and physical well-being.

Instinctively he cries when he is in trouble or when he is hungry and sucks the teats of his mother only when they are placed in his mouth. Later the power of self assertion for self-existence is developed and he puts everything that he gets into his mouth. After a period he begins to make himself happy by playing with the things that may happen to be near by. Toys are given him for this and as substitutes for playmates. Parents and then small children around him become other sources of happiness and inspiration. He begins to have some associations.

The instinct of self-help through self-help through selfactivity comes to the forefront. This is supplemented by imitation. Instead of keeping in his place and crying for food, he now crawls on all fours and goes to places where he gets something to eat and something to play with.

Soon he may make compromises and give a toy made of gold in exchange for some sweets. Elementary reasons of mutual goodwill creep in here though the worth or value of the thing has no meaning. He satisfies his immediate need and later on gets the conception of its worth

Self activity and parental care go hand in hand with the development of the inner faculties of the child. But this development is essentially individualistic and the child becomes ego-centric with a soft corner for his parents and the immediate associates only.

Gradually he makes friends with children outside his home and takes the first step on the path of social friendship and good-will. Here he requires extra schooling over and above his parental guidance. At this point he is admitted into a school to take the initial steps in group life, and learn the art of adjusting himself to his environment and get a prominent place in society.

Thus we see how the child grows, develops his associative ability and tries, by intuition, to become an effective individual and a useful member of society.

In this freedom of thought and action, the child may be led on by the most effective, natural movements, and transferred into a "Self-impelling creative individual", as some one puts it, by directing his impulsive nature to purposive knowledge.

The first and the foremost, factor in the progress of a human child is the natural growth of his individual self. One cannot make a child do what one wants him to do when he is hungry or uncomfortable. The child must be fed, made com fortable and then led on in a natural play-way manner to do what you consider proper for him to do i. e. you must bring out his individuality.

Moreover, the flow of water in a river cannot be checked or stopped altogether. It will, as it must, oppose and offer resistance to any such attempt and overcome it.

But its direction may, however, be changed and it may be employed in some useful purpose. Similarly any attempt to oppose child nature is doomed to failure. On the other hand he may be encouraged to enrich his own soul by means of friendly guidance.

His aptitudes may be studied, his tastes and dislikes may be respected.

One child may show signs of becoming an artist, another an architect, a third a Scientist and so on. These faculties of children may be guided by means of encouragement and proper leadership. This will at once create vocational interest side by side with intellectual development and thus drive out the demon of unemployment which has been nourished by the present defective system of school and University Education.

The child mind is fertile and receptive and so the seeds of culture and education sown in it in early years grow into full fledged plants which yield fruits of well balanced cultured minds capable of accelerating the all round human progress or enhancing the brutal-side of it which leads to avarice, greed and the consequent overpowering of one individual or nation by another and to general destruction by war. The teacher moulds the world as he moulds the child and the parents help him in doing this.

The teacher is the fulcrum on which can balance the social, cultural, religious, political and economic pans of progress on the one hand and the pans of brutality, tyranny and degradation on the other. And the parents are the earth on which the fulcrum rests. Hence the need of co-operation between them.

At the time of "education of children", thoughts such as "Let me teach the boys well whether they read or behave well at home or not. That is my duty," revolve in a teacher's mind—by teachers I mean most and not all teachers—and thoughts such as, "He always bothers and disturbs us here let us send him to school. That will set him right." naturally and imperceptibly begin to haunt the minds of an overwhelming majority of Parents. What an unpleasant thing they consider the school for him?

Many Parents, unfortunately, are either ignorant or pessimistic and say while discussing the future education of their children, "Great men like Poets are born not made. So are the Scientists. And so should be our children who are destined to be great. They will in that case take care of themselves. Why should we then bother about that?"

True. But how many Poets and Scientists have been born who did not dabble with their respective vocations without any influence of their environmental background?

Could Shakespeare have produced the same literature as he did with an Indian background?

Could Kali Dasa be what he was and write exactly as he did had he been taken to and brought up in England under the British influence?

Could Newton have thought of the laws of gravity had he not observed an apple fall from a tree?

The special aptitudes of almost all great men seem to have been greatly influenced, nay, directed and moulded by their environment.

No doubt they showed signs of their greatness from their very childhood and so should our budding student prodigies or children and what is more our parents and teachers both should provide the necessary environment.

# 5. On Health and Physical Culture in Schools

Whether positively or negatively, Plato, Locke, Roussau and other prominent educationists are all agreed that a healthy man is a strong man and man of reason—"A man who is always on the go, and most likely to attain strength of body and strength of mind, and the reason of the athlete." As some of them put it.

Man's pre-requisite of any advancement is his health without which he is incapable of learning, being educated or even building his own physique.

In order to be healthy, man must learn to develop good and regular habits from the very childhood right from the time he is born which envisages learning at the feet of his parents especially the mothet or the nursery school mistresses at the pre-school stage and later on in the school, in the former of which he should be kept clean, fed well, and let live in clean, cheerful and airy surroundings with plenty of toys and dolls about him to play with and fixed times for meals and for answering the calls of nature and so on, and in the latter of which he should be guided to continue keeping himself clean, developing good regular habits and maintaining the right proportion between rest and exercise, and living in healthy airy surroundings and above all acquainting himself with the laws of health and personal hygiene and the value of proper nutrition. He may even be acquainted with the elements of first aid at this stage and the evil effects of

taking exercise immediately after meals or with empty stomach. The former can be easily avoided whereas the latter makes forceful demands on the provision of midday meals or other refreshments in schools because a great majority of students come from poorer quarters where people hardly get food enough to hold their blood and flesh together—much less can they afford to spend on the education of their children especially in the face of the fact that they are even unwilling to be deprived of their active assistance and labour at home, which would otherwise substantially add to their family income.

This is exactly where the State or the country's philanthrophists should come to their aid by liberally subscribing for and providing the common school refreshments. Mind you, stress is laid on the word common as otherwise it would lead to an undesirable division of scholars into two groups, poor and dependent, and rich but independent, which would be very much resented to by the former who would naturally feel themselves looked down upon by others. I know of instances of the so-called self-respecting, poverty-stricken and semi-starving youngsters hiding themselves here and there and evading the teachers incharge so that they may not be called on to partake of the mid-day milk provided to the poor boys of our school by the milk fund built up and subscribed to by men and women who have a kind heart. This sentiment of selfregard is a good sign so far as it goes and we should feel proud of such boys as in education we aim at developing this in boys, but at the same time it does not mean that we should let them go their own way and starve. We can respect their feelings if we can feed them without injuring their feelings by arranging 'Common mid-day meals' in schools mentioned above. The rich boys may pay for their own meals if you choose.

2. School Health Service:—Having established this we come to the need of the school first-aid centre, Mishaps, accidents and the consequent bruises and injuries or the like are not uncommon in schools which may or may not provide good many avenues of physical activities. Besides, a sound development of mind is not possible without a sound health and as schools take special care in training the mind and keeping the parents in the know of the progress of their children in this respect there is no reason why, when good health is a pre-requisite of the all-round development of the body, the development of the health of the school children, the citizens of tomorrow, should not receive the attention it deserves and why the parents should not be informed about and helped in this respect too. Students' health charts may be maintained, as is being done in certain progressive schools from the beginning to the end of the school career along with the records of the conditions of the development of mind and suggestions for its improvement and treatment, if any, to the boy may be made or intimated to the parents.

This demands the establishment of a school dispensary under a qualified doctor. But since there is dearth of qualified doctors at present a qualified compounder may be appointed who may attend to all the first aid in the school and maintain a terminal record of the height, weight, chest measurements, the conditions of the eyes, throat, teeth or the like and the general condition of the body as a whole, besides paying visits to such of the

school staff and boys who are on sick leave and cheering them up in ill-health—of course they may certainly be under the treatment of their home doctors if they like without depriving themselves of the advice of their school doctor. Their sick leave may not be granted unless certified by their school doctor as is being done in our school. A nominal medical fee may be charged to meet the expenses of the medicines etc.

Such of the boys as require a medical examination may be got examined in the school by the doctor in charge of the nearest Government Hospital or dispensary who may be required to do so by the medical department thrice or four times a year in all the schools in the vicinity of the said dispensary.

3. Health through Dramatics and Lantern Shows:—And as play-way and learning-by-doing is the best method of imparting knowledge, I have also just strived in my own humble way to impart certain fundamentals of health or personal hygiene by writing small "One act plays" or playlets and making the boys act them (See Punjab Educational Journal, January 1945 issue.)

My High School boys enacted a playlet, "Cholera in Kashmir" in their mother-tongue, Kashmiri, last year and I was surprised to find on a casual examination when cholera actually broke out in Srinagar this year that most of the boys of even the lower middle classes really remembered or knew about the important precautions to be taken to prevent the disease.

I have really seen cheerful faces when boys who were encouraged to prepare their own magic lanterns and slides

leapt in joy when they succeeded in projecting their drawings on the screen and then went on a little further to seek help in writing subjects and illustrating them with their own slides which they prepared happily and willingly.

Some of the topics thus illustrated by them were, "Health in Kashmir" "Typhus in Kashmir" "Silk Industry in Kashmir and Tuberculosis in Kashmir" (see P. E. Journal, January 1945, Nevember 1945 and January 1946 issues).

Thus if static teaching gives place to a dynamic one in which boys' pent up energy or suppressed feelings find fullest expression in play the pupils will not only learn what you want them to learn most conveniently, pleasantly and cheerily but will also remember and understand what they learn persistently and permanently.

4. Cleanliness, Sanity of Mind and Emotional Equilibrium:—Right from the childhood we must inculcate the habit of keeping ourselves and our surroundings clean as cleanliness keeps off disease and promotes good health, makes us self-respecting and honourable and above all develops our æsthetic sense. Again as is being done in certain progressive schools, boys may be examined for their cleanliness and tidiness before the actual school work begins in the house-master's or form-master's period and the dirty or untidy boys made to remove their dirt or the like before they are allowed to sit in their class rooms. Again I may add that it is useless to punish or reprimand such defaulters and try to develop their good habits on bitter or even unpleasant experiences. Making the boys tidy up themselves before allowing them entry in the class

rooms is enough, as it does not hurt their feelings but only brings their sentiments of self-regard into play, which in turn prompts them on to the right attitude of mind and learning by doing.

It is, however, useless to build up a strong body with an intelligent mind when the two are not reconciled to each other and the man is bad tempered, easily irritable or susceptible to fright or fear, more so when modern psychologists like Mr. Stanely B. Whitehead and others ascribe diseases like diabetes, arthritis, high blood pressure, anæmia, digestive troubles, stomach or duodenal ulcers, heartache, palpitation etc. etc. to one or more of these mental disorders or suppressed feelings.

Hence the need of an emotionally balanced vigorous mind in a strong body with a robust health.

Certainly you might have seen boys drawing or writing on the desks or benches or even the school walls with their pencils or pieces of chalk when they are idle or have nothing useful to do. Such boys may be asked to clean their writings or drawings after the periods are over in the former case and instantly in the latter. Besides, boys' councils may be utilised to develop the spirit of social service and cleanliness in boys in which case they may be prompted to clean these and other filthy writings of their own accord from the schools walls or furniture as good turns and making use of the waste paper baskets by putting any refuse that may be lying about as a matter of course.

The magic-lantern shows mentioned above are arranged and managed by boys themselves and entry to the room

is sometimes by tickets; and as the boy organisers have naturally to encounter boys of different temperaments and attitudes, which they can successfully accomplish by their spirit of accommodation, this enables them to command by love and obey with respect. Besides, last traces of irritability in boys are removed by encouraging them to put questions to and get answers from their fellow speakers in the Science Union meetings (see Teaching, September 1944 and June 1945 issues).

In team games, if boys play matches or tournaments with others and are made to sit to subscription tea or some sort of refreshment side-by-side with their opponents when they may greet them with three cheers whether they may have won or lost and vice versa, their moral standards, social values and human relations would find a very nice training there as desired by the learned Editor of Teaching (See Education Vol. XXV, No. 6.)

Physical Education:—Having inculcated wholesome habits, ensured effective medical aid, proper nutrition and a suitable environment, the boy now needs a pleasant but disciplined system of physical culture besides a class-room mental training.

Physical culture may be divided into school' and field sports, adquatic feats and hiking treks and camping. Each may further be sub-divided into Individual and group exercises and team games.

School exercises will include those physical exercises which can be attempted in the limited space of the school such as gymnastics, mass and circle or squad drill, acrobats, ladder climbing and swinging, boxing, chest expan-

sion exercises, clubbing, single stick, vaulting, jumping, punching the ball, walking on stilts, individual or group yogic asans, badminton, Deck Tennis, Table Tennis, kabbadi, volley ball, basket ball, gutka, wrestling, giants strides, horse exercises and so on.

Change is the spice of life and so the usual practice of bifurcating the studies or the school programme by recreation and recess periods is refreshing and gives some sort of relaxation to the mind and body together.

In the recreation period a number of these exercises can be done by different groups of boys simultaneously under the guidance of different teachers who are expected to be trained in physical drill etc. In their training colleges, besides a special physical instructor who will invariably take drilling squads of the boys of the various classes on the different days of the week by rotation. Thus every boy will get a chance of taking part in every sort of physical exercise turn by turn and develop the muscles and movements of the body in the various ways.

In group exercises like clubbing and mass or circle drill etc. we learn to sink our individuality for the sake of the group, adjust ourselves with the group movements and work according to the dictates of mass benefit and its commands. In team games on the other hand we can bring ourselves to the forefront and maintain a perfect individual character and at the same time build up our team spirit and work for the common good.

The ceaseless complaint—too few teachers, too little time and too few play grounds,—will atonce be done away with as all these difficulties are overcome to some

extent as some sort of physical exercise at least is afforded to all the boys in the limited space and limited time.

Walking on stilts, circle drill and march past may be taught with the specific object of building a dignified manly carriage and a systematic and rhythmic movement. Women may substitute or take up dancing in addition to this.

Gymnastics, acrobats, yogic asans, chest expansion exercises and wrestling etc. may make the body flexible and develop the muscles whereas single stick, boxing and gutka may banish from us all fear of being beaten and enable us to learn the art of self-defence and take or administer blows in a true sportmanlike spirit.

Games such as volley ball, kabaddi, badminton or the like may be played for their recreational value and for redirection or sublimation of suppressed feelings of self-assertion or the like, or for the outflow of their pent up or superfluous energy and indirectly for the development of physical and general health.

Fields sports include some of the team games such as hockey, football, cricket, basket-ball, hurdle-race, mile and other races, cross-country run, tennis, rugby, horse-riding and so on and so forth.

Team games may teach the player the principles of democracy. Each for all and all for each i.e., a true team spirit which contributes equally for the development of the group as well as the individual besides providing tresh air and good physical exercise.

Swimming is a good exercise involving the participation of all the muscles of the body. It may also be learnt, a view to saving oneself and others from drowning.

Long distance swimming gives one confidence in facing storms in small and vast expanses of water, more so if one is a good diver, boater, or an expert life-saver, which arts can be learnt in good swimming baths or lakes. Long distance swimming makes one more enduring and persistent.

Boys may be taken for long and short treks and hikes and also made to participate in some sort of camp life as a few progressive schools do On these occasions they may be asked to be self-sufficient in all respects forming small groups of three or four for their provisions. Of course, they may be supplied with tents and may not be required to stay out on mountain treking for more than say one or two nights or else they may be offered special facilities and conveniences for it.

Here the boys will come face to face with the stern realities of life and hardships of nature and since they feel themselves cut off from civilisation and any easy help, they come to grips with obstacles, endure difficulties, get hardened and toughened and thus learn the first lessons of patience, perseverance and forbearance. Boys below a certain age may be exempted from joining such treks.

They may again be afforded opportunities of enjoying a camp life for a few days during the year when they may engage in scouting and scout games which will teach them tolerance and brotherhood in addition to providing good health-giving and invigorating exercises.

6. Competitions:—True that over emphasis on competitions has its own dangers, but it does not mean that there should be no competitions at all. Without competitions there can be no or limited progress, but what is desir-

able is that they should be healthy competitions. These competitions should neither lay too much stress on individual competitions nor remove individuality altogether but should seek to find a happy via media by giving honour where it may be due.

A school may be divided into a number of houses, preferably an even number, for the sake competitions in the various games and sports which may not be studded in any one particular season of the year to the detriment of studies but evenly distributed throughout the year.

Standards and points may be fixed for the various sports in which all the individual members of the houses could take part and the best boys in each item of sports from each house selected for competitions on the annual sports day. The first boy in each item may be given as many points as there are houses and the last boy one point, provided he does not give up his attempt before finishing the race or the jump or the like.

The total number of points may finally be calculated and the average per boy found out on the basis of which the winning houses may be declared. The merit of the best sportsman in the house may be recognised by recording this in his character form and giving him the chance of receiving the prize for his house on the prize day. Individual prizes may be given where they are justified.

This method will reconcile the individual with the group and the group with the individual.

To provide ready-made standards in the various sports items to our learned and honoured co-workers I have tabulated it here.

Boys of different ages or heights will naturally take different times to run round various race courses. Their broad or high jumps will also vary in magnitude. The standards of height and breadth to which average boys of Kashmir can jump and the time limits during which they can complete a certain race course are given in the table below limits during which they can along with height restrictions:—

Age groups	100 yards race	1 mile race	‡ mile race	Broad jump	High jump	Pole jump open for all boys:	Height above which the boy must join the next higher age group
below 10 years	16. sec.	1-30 sec.	min. sec. 2 - 45	ft. inch 8 - 4	ft. inch 2 - 10	above 5' - 6"	4' - 7"
10-12 years	15. sec.	min. sec. 1'- 25"		6	3' - 3"	<i>II</i>	4' - 11"
12-15 years	14. sec.	min, sec 1'- 15"	"	10' - 8"	3' - 9"		5' - 5"
15 and over	13. sec.	min. sec. 1'- 10"		11' - 8"	4' - 1"		

One year's records of these sports items are given below:

Age groups	100 yards race	High jump	Broad jump	Pole jump
under 10 years	15 sec.	3, - 8"	<i>"6 - '6</i>	8, - 5"
10-12 years	13-2-5 sec.	4' 4"	11 8"	
12-15 years	13-1-5 sec.	4, - *"	13' - 5"	
15 and over	13-1-2 sec.	4' - 7"	15' - 7"	

Day of the school the different boys and teams may be awarded prizes for the various sports items or the like which they might have won during the year for their houses. The boys sit in separate groups i. e. houses and as rivals in competition to others. This rivalry may be healthy and sometimes it may take an unhealthy turn which should definitely be discouraged with a stern hand not harshly of course but by inculcating good attitudes in boys throughout the year and in the classroom or the playfield.

One of the most pleasing ways of counter-acting such a tendency in boys and achieving our goal is to make them feel that whereas they are important entities as individuals in smaller groups, the houses for which they do so much to win as many trophies as they possibly can un order to keep their heads up with others or above others, similarly in the ultimate analysis each of the houses is a convenient unit of the larger whole-the school to which they all belong and by enhancing whose honour they are enchancing or adding to their own honour. Finishing and a lasting touch to this unity in diversity can be given by making the different houses conclude their prize day by a "Unity Parade and march passed" in which the different houses start from different places A, B, C and D as shown in the diagram and follow the band in a march passed one after the other round the prize day arena, saluting the distinguished visitors by keeping their eyes right or left as the case may be and turning round the corner No. 4 to spread out into four blocks A', B', C' and D' facing the visitors. The band may take the central position in the figure mentioned above i.e. as shown in the diagram given overleaf.

Each of the houses must have a boy in front of it prominently holding his house placard. Somewhere behind the house blocks A', B', C' and D' there should be another boy holding a placard with the word "UNION" written on it and two other boys with a large placard with the name of the school written on it.

As soon as the houses take their proper places at A', B', C' and D' after their 'march passed' with the band in front, the band should stop playing and the boys should no longer mark time but stand to attention.

A whistle should then be blown and the house placard holders should run to take up the positions P, Q, R and S. One of these boys should then shout out "UNION". All the houses thunder forth in reply "IS STRENGTH". On this cry "UNION" the placard holder "UNION" should run to take up his position in between them at K. These shouts may follow each other three times. After the first two calls the houses A' and D' should above turn to join the houses B' and C' respectively at II position. Some of the boys from B' and C' should fall out in positions No. 1.

Now the cry "UNION" for the third time should be followed by the thundering cry "IS STRENGTH".

The "UNION" placard holder should then take up his urn to ery alound "WHAT IS OUR COMMON RULE?".

He should immediately be followed by the resounding ries of "ALL THE HOUSES FROM ONE SCHOOL", by the whole school effectively together. On this cry the two poys holding the placards with the name of the school on

it should run to take up their places in front of the other placard holders.

This also may be repeated twice or three times and after the first of these cries the placard holder should form a single file behind the two boys who hold the school placard.

After the third repetition of these yells, the band should begin playing automatically and the boys should mark time to its tune. The placard holders should march right wheel up to the position marked III wherefrom they should disperse to their former places with their houses.

The band should then march along the central path with the houses following it from the sides till they return to their starting points A, B, C, and D and the band as marked by the arrow heads. This "Unity Parade" will pleasantly and subtly send a warm wave of "Unity" through their hearts and inspire them with nice feelings of unity and brotherhood for the common good of all besides giving them a wholesome physical excercise.

Boxing:—The weight groups into which boys can be divided for championships for boxing with the height restrictions already enumerated with atheletics elsewhere are as follows:—

I weight 8 stones and over.

II weight 7 st.—3 Lbs. to 8 st.

III weight 6 st.—6 Lbs. to 7 st.—3 Lbs.

IV weight 5 st.—9 Lbs. to 6 st.—6 Lbs.

V weight 4 st.—12 Lbs. to 5 st.—9 Lbs.

VI weight 4 st.—1 Lb. to 4 st.—12 Lbs.

From the above it is clear that there is a difference of 11 Lbs. between each of any two successive age groups.

## 6. History Through Stamp Collection

Inspired by the enlightening lecture delivered by Mr. Erie Tyndale Biscoe—worthy son of worthy father, Canon Tyndale Biscoe, the pioneer educationist of Kashmir—on his own collection of stamps and how he had enlarged and preserved it, I propose to recommend this hobby, of course with apologies to those who consider it an interference on my part, for introduction in some if not all, progressive educational institutions, to the youth of the country and the respected teachers of History at large.

"It is because of reminiscence that the heart of youth goes out into play as into nothing else, as if in it man remembered a lost paradise" says Stanley Hall.

Children are essentially active and will naturally learn spontaneously if their self-activity is mobilised through the agency of play.

Hence, since, we indulge in stamp collection, we divedeep into the past and associating ourselves with the spirit of the times we get the real joy of life and a working knowledge of the past history.

In 1840 Rowland Hill—the Postmaster-General of England succeeded in introducting the Penny Postage System in his own country. Before 1840 there was no cheap, regular, trustworthy or convenient postal system anywhere in any country in the world. Just before 1840 of course there existed a nominal postage service and mail

was carried and letters had to be paid according to the distance they came and after the delivery, so that anybody and everybody was free to refuse delivery of any and every letter. Each letter cost about two, three and even four rupees at times—(It is an approximate and not an exact cost.)—and so people often went without letters. People who could not afford paying for their letters, therefore sometimes resorted to foul and unfair means and made the department run their errands without paying for them. Here is a story to illustrate this and which one cannot afford to miss without sacrificing some interest of this article:—

A poor old woman whose only son was conscripted and sent to fight an enemy in a far distant land got a letter from her son. She said she would not take delivery of the letter as she could not afford to pay for it. There was another man overhearing the conversation. He came and asked the old woman to take delivery of the letter as it came from her only son. She said she would not do so as she could not afford to pay for it.

"Take delivery, I shall pay for you," the man insisted.

"No, I do not want you to pay for me," replied the poor woman,

However, the man taking pity and not caring for what the old woman said, paid for her and when they opened the letter (envelope) they found no letter enclosed in it.

How was it?.....was the letter lost?

No. The coming of the envelope conveyed to the old woman that her son was all right and so they managed to make the post office run their errands without paying for the cost.

In 1840, however, Rowland Hill, the then Postmaster-General, succeeded in convincing the Government that if people were asked to pay only an anna per letter the Government would make more money and also give more convenience to the governed.

In 1840 was inaugurated Penny Postage in England on the principle of payments before despatch. And since Queen Victoria sat on the throne of England at that time, the first stamp bore her picture on it. The first Queen Victoria stamp is therefore the oldest stamp in the world and hence will come first on the page which may also be the first page of the album if pages be assigned to countries according to their priority in the introduction of the Penny Postage system.

Here this will at once remind the mature collector of the pre-penny postage system, Rowland Hill and some of the reforms of Queen Victoria's reign and so on.

The young collector or the amateur collector will become inquisitive and ask questions such as, "Is it the oldest stamp or did they have stamps before this one? How was the mail carried and paid for when there were no stamps? Whom does the picture on the stamp represent? Was she or he a King, Queen, President or Dictator? What happened in his or her reign or term of office? and so on."

This is clearly a psychological moment in the development of the child when he really feels the need of or thirst for knowledge. The teacher has simply to realize this need and drop in the required information in an interesting way. The information will thus be struck home must surely and imprinted permanently on the most sensitive and clean slate of the young brain. In addition to what the boy asks for, teacher may at once tell him that in the same year 1840, New Zealand was brought under the British Crown. The aborigines of the land, the Maories who were cannibals were persecuted by the Europeans at first and in this year they were brought into common brotherhood with the immigrants.

Referring to and showing the New Zealand stamp to the boy, the teacher may show him that the stamp bears the picture of the "Signing of the Treaty with the Maories" by virtue of which treaty the Maories were granted their freedom. Later on the boy may ask as to why the different stamps are coloured differently and how the mail is carried from one country to another, and if he does not he may tactfully be led on to ask such questions.

He may then very easily be led to know something about how in the International Conference held in England in 1895 an "International Postal Union" was formed and how a treaty was signed by all the independent countries by virtue of which it was agreed that each nation would carry the mail of all other members of the Union without any extra charge and the rates for post cards and letters would be uniform in all the countries. Colours were fixed for the stamps of different values, green for half an anna stamp, red for an anna stamp, and blue for two and a half annas. The boy may also know that this colour system no longer remained uniform after the 1914 war.

If a boy may have brought into his collection a starry of Switzerland which has the picture of a boy with

an apple on his head and a man with a bow and arrow on it, he may naturally ask what the picture signifies. He may then be reminded or told that Switzerland is a republic and has no king and also that there was a man called William Tell, a master in the art of shooting the arrows from his bow, who once fought with with the independents of Switzerland against Austria and was taken prisoner. Consequently he was to be assasinated for his so-called war crimes but was promised freedom if he successfully shot an apple placed on his son's head without hurting his son by his bow and arrow from a fixed distance. William Tell did so and was granted freedom. Hence the picture on the Switzerland stamp.

Some other students might have collected stamps of European countries from 1914-18. They might have in their collections some German stamps with the word "Belgium" printed on them. These boys would naturally enquire about them and know that these stamps were issued by Germany for Belgium when the latter was temporarily conquered by them in the 1914-18 war. They may then be encouraged to have a parallel stamp which was issued by Belgium for Germany after the end of war in 1918 when a part of Germany was handed over to her. These Belgian stamps for Germany bore the word Germany printed on them.

Egyptian stamps bear the impression of old pyramids which may remind one of her ancient civilisation.

The Russian sickle and hammer on the stamp reminds one of the great revolution which broke out in Russia immediately after the last Great War in 1917 when its

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Czar was thrown and Russia became a Republic, the sickle representing the Peasant and the hammer the Labourer. American stamps sometimes bear the impression of the Presidents who are already dead.

From the Japanese stamps, the boys would readily know that these stamps bear no impressions of the pictures of their Emperors because people worship their Emperors as their Gods.

The Dutch had acquired some land in South Africa and become farmers (Boer) treating the natives as their slaves who rebelled and began killing Europeans without any distinction. The Dutch could not suppress the rebellion and so the Europeans continued being killed by the natives. The British wanted to bring peace but the Dutch resented their intervention. Thus started the Boer War in which the Dutch were defeated and so the Boer stamps were printed with the pictures of Queen Victoria from 1899-1901 and with plctures of King Edward VII from 1901 onwards.

Later on in 1910, when the Dutch and British provinces were united into one Dominion and given self-government, the Dutch were once again independent but were incorporated in a bigger Union known as the South African Union and so the Dutch and British stamps in this Union were amalgamated and the ensuing stamps run in pairs, one British one Dutch.

On procuring this stamp one would at once recall if one already knows it or has heard about it, or try to know the reason why these stamps run in pairs from history books or from some one else. Thus one would know

something about the causes of the Union, the Boer war and the Dutch and British Settlements in South Africa.

The Commonwealth of Australia which was formed in 1912 by uniting all the British States and settlements which ran mainly along the coasts of Australia and had their own separate and independent stamps, produced and brought out its stamps with a map of Australia and a Kangaroo on it, as Kangaroo is peculiar to this country alone.

Stamps were introduced into India in the year 1851 and were issued with the pictures of Queen Victoria, King Edward VII, King George the V, and so on in their respective reigns. The present stamps bear the impression of the picture of King George VI. All these have their own histories to tell and the special stamps with the pictures of New Delhi which were issued at the time of inauguration ceremony of the new capital of India in 1912 or so will remind the collector about the change of India's capital and all that is connected with its history.

Special stamps were issued in England in 1940 with double pictures of Queen Victoria and King George VI side to commemorate the centenary of the Penny Postage System. These stamps if collected will tell the history of Penny Postage and all that is connected with it.

Thus we can see how we can learn the history of the past. By a good and choice collection of stamps we also get an insight into the exchange value and coinage to some extent.

Kashmir also had its own stamps from 1866-94. The reader might have come across, at one time or

another, some boys of very rich parents who steal other boy's things. Why is this so? Surely this is a sign that the boy's instinct of acquisition is in the forefront or, as Ross would put it, that the boy is transferring his unconscious attitude of rebellion towards his parents to society or again, as Ross puts it, the boy's shows signs of the repression of his sex-instinct and that the stolen thing has a symbolic sexual significance for him.

Therefore, boys in general and such students in particular should be encouraged to collect stamps, coins, flowers or different kinds of stones, portraits, cartoons, pictures of great personalities i. e. Leaders, Scientists etc. and pictures of great ships, aeroplanes, or of important events, such as the history of the Atom Bomb as given in the various papers. Then their thwarted impulses and repressed instincts and feelings will get suitable employment in useful channels and on their instincts being sublimated, the habit of stealing will die out a natural death imperceptibly.

To conclude, I think it will not be out of place if I give a few directions on the technique of stamp collection. Here they are:—

1. Procure a number of thick sheets of paper. Bind them loosely together between two folds of a hard cover in such a way that all of them, the cover and the sheets, can be rearranged and reshuffied at any time with the least possible effort and difficulty.

Fix some leaves if you like for the different countries with the names of the countries written at the top of the leaves and maps of the countries drawn below them.

2. Each country has its own stamps. Since you usually get letters from your relatives and friends who live in your own country you will naturally begin collecting the stamps which you can get from these letters. Then as your associations with the other countries increase, you may get stamps used in those countries as well and fix them in their proper places. You can make Pen-Friends in the different countries of the world.

Take the first stamp that you get from your letter and affix it on its proper page in your album. You may not paste it on the paper but simply fix it by gum at one of its corners or better still in a crevice in the leaf meant for the purpose by one or more of its corners. This will enable you to reshuffle these any time afterwards.

- 4. How to remove the stamps from the letters: Take the letter with a stamp on it. Moisten the portion of the paper that lies exactly behind the stamp. Gently rub it. You can remove the whole of this paper and get your stamp.
- 5 You may fix spaces on each leaf for stamps according to their antiquity and then affix them in each space according to their values. Should you find at any time that the fresh stamp that you get has no space left on its proper page or pages according to its antiquity or value, you may make a reshuffling, as already mentioned above, of the stamps on this and give the stamp its proper place thus enlarge your collections and your knowledge easily, interestingly and systematically.

# 7. Moral Training in the Biscoe Schools, Kashmir

#### Aims and Methods of a Famous Institution

-Editor Teaching.

And the great principle and foundation of all virtue and worth is placed in this, that is, a man is able to deny himself his own desires, cross his own inclinations, and purely follow what reason directs as best, though the appetite lean the other way.—Locke.

Moral training is a necessary element in schools in so far as it consists in cultivating in a child a certain attitude of mind towards the world in which he is placed and the life he is appointed to live, for which purpose a very simple basis of belief is quite sufficient.

The present and all other world wars have shown that physical fitness supported by intellect can be and often is used in the destruction of the world. In order to reduce this tendency to a minimum we must supplement physical and intellectual education by moral education. By this means we enable a child to do things in the right way, i.e. we develop in him the habit of doing a good thing instinctively, or in other words we try to change an idea into an ideal.

Moral training in a school may be carried out under the following heads:

#### Religious Education

Without religion it is difficult to develop true morality. Morality must have a religious background. Feeling is the dynamic of action and religion inspires the feeling which urges to moral action. We cannot teach morality without relating it to religion. Religious sanction inspires and gives life to morality. Not only is morality founded on religion, it also results in quickening and deepening religious life. Children get faith (which moves mountains) from the careful study of their scriptures. The extreme reverence for certain religious ideals makes them humble, respectful and tolerant. In religion we come across hymns and prayers which inspire us with respect and love for the divine and make our lives sublime. We inculcate and develop a conscience which rightly decides what is good and worth doing and urges us to act according to the highest ideals of life that we know.

To achieve this end and to establish, as Plato has said, that God is the author of good only, religious hymns suitable for the different days of the week and for various occasions have been written in the *lingua franca* of the State, and are being sung in chorus by the whole of our school, i.e. by all the members of all the communities together, to the accompaniment of the school band. These hymns contain praises of the all-pervading God Almighty and prayers for the achievement of the ideals of the budding generation. This is followed by silent prayer, conducted by a leader, perhaps the headmaster, who reads the prayers aloud. These mass prayers sung in all

humility and sobriety, every morning before the commencement of any school work, serve as incentives to toleration, serenity and mutual goodwill and prepare the students and the staff for smooth working during the day.

Soon after the recreation period is over, in the middle of the day, the students and the staff stand to attention in the school compound and repeat silent prayers for one minute after they have saluted the flag. This is a type of common prayer repeated by human beings as members of one single cosmopolitan community. The boys stand in lines house-wise and not religion-wise, and the prayer is representative of the individual religions of the boys as each boys is free to pray in his own way in his heart of hearts, though of course every one may pray for the same cause.

Thus through the creative genius of that great educationist, Canon Tyndale-Biscoe, who devised and introduced these methods into his schools, all the boys and teachers belonging to different castes and creeds have carried on their work harmoniously together since the establishment of these schools in Kashmir about 63 years ago. In agreement with Pestalozzi, children are thus made to pray that they may be willing to work, and to work that they may never grow tired of praying.

Religious education is therefore necessary in schools, in so far as it does not interfere with or replace other subjects or infringe upon religious neutrality and thus embitter the relations between the different communities and sects. This difficulty may on the other hand be surmounted by a compromise and by taking a via media. The basic principles of nearly all religions are almost the

same and these are the general ethical and moral principles. These should constitute religious teaching in schools.

If the students are told all that is good in the various religions, they cultivate a feeling of tolerance for them and thus a wave of goodwill passes through their hearts and the different communities become united.

Weekly scriptures lessons are based on the textbook, The Best Friend, which contains a collection of stories about good deeds. These provide good advice that can quite easily have the sanction of nearly all religions, as all religions advocate virtue and good actions. Lectures by eminent representatives of the various religions have also been arranged this year by Mr. K. W. S. Jardine, the Principal. P. Sri Ram Sharma, Principal, D. A. V. College, Srinagar and Kh. K. G. Saiyadain, Director of Education, Kashmir State, have spoken on Hinduism and Islam up to the present, and lectures on Sikhism, Christianity, etc., have also been arranged. It is hoped that this practice will be repeated every year to fulfill the demands of sound liberal education.

Besides, booklets on Kabir, Ram Tirtha, Vivekananda and other Hindu, Christian and Mohammedan saints are issued to the boys to supplement the religious knowledge that they get at home or elsewhere.

Moral education must supplement religious education. Moral education may be given by talking about the great men of the past—saints, leaders, and prophets. But since our problems may be different from these great men, we have to develop a critical attitude towards ourselves. It is useless to have a compassionate feeling without

doing a compassionate act. We must turn good ideas into good actions.

Religion in Action, i. e. character-building, has been one of the chief aims of education that Canon Tyndale-Biscoe has been imparting to his students all these fifty or sixty years. To this end, he engaged the boys or encouraged them to engage themselves in various activities.

A bird aviary is kept in one of these Biscoe schools to treat and feed injured birds. The boys who have done kind deeds of some outstanding merit to animals are honoured by having their names recorded on the School Honour Boards entitled, 'Kindest Deeds to Animals'.

Kashmir is a land of water and so boys are taught swimming (which is compulsory for all in these schools) and diving. They are encouraged to risk their own lives to save others from drowning—an accident which is not uncommon in this land. Hundreds of lives have been saved by these Biscoians so far. The Honour Boards which record their names are entitled 'Those who have risked their lives for Others' and 'Those who have given their lives for Others'.

Dog ambulance carts in which the boys carry sick or injured animals, especially the street dogs, to the Veterinary Hospitals, have been given, one to each Biscoe school, by the Old Boys' Association.

Boys are also encouraged to use the school boats for taking poor convalescent patients from the hospitals for an airing. A trophy is awarded to that house which carries the greatest number of these patients during the year. Groups of boys headed by teachers have been sent by Mr. K. W. S. Jardine in the fuel scarcity of 1942-1944 as Canon did of old, to the various fuel depots in the city to help the poor and weak, especially women, to get their fuel rations in time and in some deserving cases this fuel is carried home by the boys. It is insisted that the boys and teachers extend their help where help is due.

We have to develop an emotional tone in children to make them feel that things owned by others should not be stolen. This spirit can be enhanced by putting them in an environment which can rightly bring them to an appropriate standard of etiquette, manners and ideals. This cannot be done by preaching alone but by giving them actual practice in good actions and by training in good moral character.

In the Biscoe schools children are encouraged to hand over to their house-masters or any other teacher, anything that they may happen to find and pick up in the school compound or anywhere in its vicinity. The teachers then find the proper owners and deliver the goods to them. Many things, including cash, have thus been returned to their proper owners.

Literature and history can give us a training in good moral character. Literature develops a sense of appreciation of the beautiful, and history teaches us how to carry on through the ups and downs of life.

A students' body, called 'The Science Union', has been formed in the school, which holds meetings very frequently, in which the boys are encouraged to explain and illustrate their topics in the best possible way and then answer any questions put to them by any other

student in the audience (the methods of achieving this may be given in some other article). This enables the boys to have a sound mind in a sound body and trains them to have a receptive and responsive mind.

#### Punishment and Reward

'Children should never receive punishment as such', says Rousseau. It should always come as the natural consequence of a fault, and again, a child should never act from obedience but from necessity.

That is exactly what Canon and Mr. F. Jacob have put into practice in our schools. Marvellous results have been achieved by his methods which have enhanced the good tone of the school.

In our school sports and games-competitions which take place from time to time during the year a certain agreeable standard of etiquette and behaviour is insisted upon. If there is any breach of this standard of behaviour by any member or any group of members of a house, the culprits are not punished but the whole house finds itself disqualified for that item of the competition. This brings the whole house to order not from obedience but from necessity and the punishment is a natural consequence of their fault.

In all kinds of races, it is insisted on that the last boy or boat should complete the course, for which points are given to the house to which he belongs. This teaches boys to carry on the struggle of life manfully even when defeated.

### 8. Out of the Whirl-Pool

A Poor Science Master, his difficulties and how to remove them.

The science master who was caught in the 'whirl-pool' is the one working under an over-enthusiastic headmaster who made impossible demands on demonstration work. As ill-luck would have it, the topics which fell to his lot in the first few weeks or so, of his taking charge of the work were some such topics as:

- II. Middle-Archimedes Principle (first period).
- V. High-effect of reduced pressure on the boiling point of water (2nd period).
- IV. High-preparation of oxygen (3rd period) and so on.

He had, therefore, to come earlier than the usual school time to arrange and at times to fit up the apparatus for demonstration purposes. No sooner did he finish his work with the II middle class than the V high class came in. On the one hand he had to clean and remove the apparatus from the table and on the other, he had to fit up the apparatus for the new class (experiments) and proceed on with his new lesson. The presence of the new class in the room prompted him to make haste which resulted in the breaking of a few flasks, beakers and gas jars, etc. This gave boys an opportunity to make a noise and become unruly.

In the practical work, which he had to take up with the pupils after the school hours, much of his time was

In the various matches all the boys of all the houses are required to admire and cheer any kind of fair and excellent play on either side, and not on their own side only. Besides, in every match the losers are required to give three cheers for the winners first and then the winners cheer the losers. This teaches magnanimity in victory and sportmanship in defeat.

If there is any breach of behaviour in the classroom the boys are made to run round the school compound several times. The boys do their best to avoid this instant punishment and so try to behave in the proper way.

Boys who fight with each other are made to spar with boxing gloves in the school compound. On the one hand, this completely purges them of their anger and on the other humiliates them. This often results in their cordial friendship ever afterwards. consumed giving apparatus to and taking it back from the students leaving very little time for the actual work. (Most probably this is so in many schools even now).

Consequently he was neither able to ascertain whether they had come prepared with their assignments nor give the requisite directions with any appreciable effect; for, if he did, it would take more time and be resisted by the pupils bubbling desire to do something and do it quickly. This resulted in hurried, slipshod and careless work on the part of the students, which ruined the very purpose of practical work

The hasty removal of apparatus from place to place resulted in mishandling and the consequent breaking of the apparatus—especially the glass-ware apparatus. The teacher could not be blamed because it was not he who broke the articles—the boys could not help it as they had to make haste so that they might be able to attend the games in time and have a change. Here the teacher had either to replace the things himself or charge the price to the boys—both very unpleasant things—as otherwise he had to bear the strictures of the auditors.

The early arrival at and the late departure from the school stood in the way of his participating in any of the outdoor games and extra mural or extra curricular activities. This took off the whole charm of life from him and made him a recluse. Boys looked on him as a hard task-master who never associated in their play. He began to consider himself as a member of the despised class and so he hurried home with a heavy heart and exhausted in spirit though not in body. Consequently he entered

the class pre-occupied and worried and often without preparation. He could not hold himself together when as a result of insufficient preparation, he found himself confronted with a special question which he could not answer without circumlocution. There was whispering in the class which he could not check nor could he ever think of keeping his class engaged in writing or in some other work.

The Headmaster's unsympathetic attitude he began to pass on to his students—any breach of discipline he took as an insult to himself and so he became irritable and began to scatter insults, rebukes and sarcastic remarks all over the class which embittered his relations with the pupils. He began to issue indecisive orders, such as "remain standing for three days: Don't enter my class for four days", and so on, which he had to withdraw as often as he issued them. Lack of interest resulted in lack of discipline and the consequent chaos. Thus he was caught in a whirlpool from which he found it difficult to come out in safety.

Anything may be drawn to the bottom by a whirlpool, carried away by its current or brought out and taken to the bank by man. The condition of the science master was similar. The usual tendency in such a case is to purge the science department of such a teacher by transferring and taking him into another department. But wouldn't it also suggest to the boys that they can make and unmake teachers?

Wouldn't a progressive institute nip such an evil in the bud by directing (and helping) the teacher on proper lines from the very beginning? Some of the devices, ways and means that will not only not allow him to fall into such a whirlpool but will also bring him out if he has been already caught in it, are:

1. The demonstration table can be so constructed that it can hold the whole apparatus needed for demonstration purposes or at least be so made that it can hold the demonstration apparatus, needed for three or four months work, which could be taken out and replaced by the apparatus needed for another four months and so on This could save a lot of time which is consumed in taking apparatus from and to the demonstration table from the store room or the various shelves and almirahs.

Further the two uppermost shelves on the ends could be so constructed that by the manipulation of a few screws the whole apparatus needed for a certain experiment could be raised to the upper surface of the demonstration teble and that, which has already been used, could be lowered and concealed from sight.

2. An *individual laboratory system* could be devised—and each student provided with a locker at his own seat, where he could keep the apparatus to be used by him repeatedly.

The whole apparatus needed by the pupil in the high classes can be kept in these under the school locks with a list of apparatus, contained in it, pasted on the outside surface. As soon as a boy comes to the 4th high class he can be given the charge of a locker containing the apparatus needed for the class, the 5th high class students being given the lockers containing the apparatus needed for

both the 4th and 5th high classes. The teacher can note down any breakages etc. and check the apparatus at the end when the students leave the school for the college and hand over the charge of the lockers to him. The boys can check their own apparatus at any time in consultation with the list pasted on the lockers.

- 3. The school work may be Daltonised.
- 4. The head master may have a sympathetic imagination and not insist unnecessarily or make impossible demands on demonstration work. The teacher can use his own discretion and arrange such demonstration work as makes greater demands on time on alternate days with the different classes.
- 5. The time table should be so arranged as to give him a vacant period in between the periods making greater demands on demonstration work and not at the close of the school periods.
- 6. The school work may be divided into nine periods and the science teacher given the last period also with 4th and 5th high classes on, say, alternate days the boys reading classics may be engaged in library reading or with their classics teacher and the remaining period may be given to English or any other subject.
- 7. A laboratory assistant may be engaged provided the number of boys is very large.
- 8. The text books of science from I middle to 5th high classes may be so co-ordinated, their syllabi so arranged and the school time-table so made that there is the least possible disruption and clash in demonstration work while the classes are being taught.

## Chapter IV

## An Experiment in the Teaching of science to the University classes of a High School

Before dealing with the subject proper I think it will not be out of place to remind ourselves about the aim of teaching Science that have already been established for us and are certainly worth striving for if we mean to give a sound liberal education based on humanistic lines to our budding generation. These aims are:—(As given by Mr. Brown).

- 1. To get pupils to reason about things they have observed, and to develop their powers of weighing and interpreting evidence.
- 2. To acquaint the pupils with the broad outlines of great Scientific principles, and with the ways in which these are exemplified in familiar phenomena and applied in the service of man.

As far as the teaching of Science is concerned, it has long since been observed that there is a lack of coordination between our elementary, secondary and even higher institutions in so far as the University student in common with the school boy commences afresh with the same exercises in weighing, finding densities and so on. Experinmental work is not an end in itself but simply a means to an end and so experimental work without an insight into its application to the service of man in everyday life is worse than useless.

Besides, in the words of Mr. Brown the students should be given some knowledge of the humanistic or

inspirational side of Science, they should know something about the lives and works of eminent poincers of Science and be thrilled by the romance and triumph of modren Engineering, Chemistry, Physics, Astronomy and Biology.

To achieve these ends, I have just tried in my own humble way, to fuse together the various methods of infusing the spirit of Science into my pupils—of course many of these additions build on and add to the nucleus of University Syllabus (as the work has been started in the 4th and 5th High classes) in a little more practical way.

The procedure of gathering this knowledge is carried on under the following sub-heads:—

1. Scientific Hobbies and the Workshop.—Some of the Scientific hobbies have been introduced and thus an atmosphere of science workshop created in the department. The hobbies are selected in such a way that the spontaneous playful attitude of a particular boy towards an activity may invariably help him in his Matriculation courses and give him a wide and more useful knowledge of science. As a result of this boys have prepared, pinhole cameras and magic lanter n\* astronomical and terrestrial telescopes, simple and compound microscopes, photographic cameras (first 'picture by one of the cameras that we made with a shoe case, which appeared in the then weekly and now daily Hamdar', Srinagar, in the month

<sup>\*</sup>A boy had prepared his own slides which he magnified by his own magic lanteren to illustrate his subject 'Hoalth in Kashmir' on the Annual Function held on April 28, 1944.

of April, was taken on the annual function of the Science Union on February 27th, 1943) model of heart (of clay) and some of the boys have drawn the pictures of some of the great scientists (and not purchased them) and written a few sentences about them.

- 2. Utilization of The Laboratory Waste.—For instance Zinc and Sulphuric Acid that are used for the preparation of Hydrogen Gas, instead of being thrown away, are collected and used for the preparation of Zinc Sulphate. Similarly Copper and Sulphuric Acid used in the preparation of Sulphur Dioxide are used in preparing Copper Sulphate Crystals and so on. Experimental work in science like this, (or by these means) not only pays a part of its own cost but gives boys a correlated knowledge of medicine and science (Chemistry; and an insight into the secrets of trade.
- 3. Science Union—The boys have formed a representative body of their own, called the "Science Union" with the science master as its president, secretary and librarian from the V High and the assistant secretary from the IV High classes, the science boys of the two high classes being its members. The Union holds occasional meetings which are punctuated by the Annual function. Boys from the IV High are encouraged to read some articles, which they prepare as a result of their extra reading. As they advance tey are encouraged to dispense with the papers and deliver speeches in which they illustrate and explain their articles with the help of drawings on the black-board, maps and charts, and with actual experimental work and correlate their topics with

as many subjects as possible and with life. They are also encouraged to answer the questions regarding their topics, put to them by any member or members of the audience. To achieve this end subjects are announced by the speakers and notices of questions to be put to them given by the members beforehand. On the one hand boys are saved from developing an inferiority complex likely to result from their inability to answer these at once, due to the number of difficulties that they have to face in addition and on the other they are encouraged to overcome the odds (by making these odds easier for themselves in the beginning) and face an audience in all its aspects. Thus successful first attempts of self-assertion lead them on to still more self-assertion and all those who participate in this are sure to climb to the ladder of success in all respects. From instincts boys are led on to sentiments and from sentiments to the self-regarding sentiment.

4. Schemes of Corrections of Assignments.—The assignments, completed by the boys in the class room or at home, are not left to pass without any correction. Not only is the subject matter corrected and suggestions given for its improvement but their language is also attended to and it is insisted that they should carry out those suggestions and complete the corrections. Flexible turns are kept for the correction of the V and IV High Class Science and Physiology work separately.

The boys are thus led on to prepare a sketch and a reference book of their own to which they attach a table of contents in the beginning.

The table stands as:

Remarks				
Ref. page Note book.	1517	19—21 21—23	25—23	
Ref, Chapter Ctemistry by Prem Stngh,	Chapt. V Chapt. IX	Chapt. VII—Chemistry by N. A. Yajnik Chapt,	ot. Aumi	
Questions or assignments.	Give the preparation, properties and uses of Oxygon Gas What is Allotropy? Give the allotropic forms of carbon are	chemically identical.  Write a short note on uatural sources of water supply.  Write an essay on the hardness of writer.	What is water made up of? Explain fully.	
Date	8-10-43	11-10-43	13-10-43	
Š.	7	w 4	~	

In case they are required to refer to a certain chapter of some other book in addition to the class book in (Chemistry by Prem Singh) the name and the author of the book is specified under the book reference column, against that particular assignment.

They tick off the assignments in the remarks column only when these have been corrected by the teacher and the corrections and suggestions attended to by the boys. In case, all or any of these are wanting they leave the remarks column blank. In this way science work is improved on the one hand and the boys are assisted in English composition on the other. This incidently provides them with the reference book for any of their difficulties.

A table of daily work is developed or built up from day to day. The work done is given in brief and the teacher ticks off the work that has been completed by a particular boy and corrected by the teacher. The spaces corresponding to work not done are left black. Thus the table serves as a ready reckoner from which the teacher and the boy also can at once see as to what part of the syllabus or work a particular boy has or has not done. The student may be asked or required to complete that work on a holiday. The table stands as:

Carbon							
Allotropic Forms of Car'son.							
Acids, Bases and Salts.				- <u></u> .			
Hard and Soft Water				· · · · · · · · · · · · · · · · · · ·	• <u></u>		
Composition of Water							
Hydrogen.				·			
Se Union or book or							
Oxygen							
Nitrogen							
Composition of air							
Air a mixture.							
Mixture and Com- pound.							
Indestructibility of matter.							
Physical changes. Chemical changes.							<del>-</del>
Name	3ocal Mujoo-iv H	K. N Kuda-iv H	. Kadir—iv H	N. Bhat—iv H	A. N. Dhar-iv H	M. L. Munshi—iv H	M. L. Tickoo-iv H

The individual Progress graph given elsewhere is based on this ready reconer \*

- 6. Isolation Removed—When a boy falls ill or absents himself from school for a few days he is not isolated from the class or made to complete the assignment given on all these days before as soon as he attends the class but is allowed to carry on with the class till a holiday or holidays intervene when he is expected to complete some or all these assignments piecemeal. After all, all the chapters of a book are not completely dependent on their previous chapters. (He may however, be given some assistance in these assignments even beforehand if the present lesson happens to be directly dependent on the previous one). Thus, on one hand, he is saved the drudgery and loreliness that he would experience if he were made to complete the previous assignments first, and on the other he is not allowed to let bygones be bygones which would not prove useful to him.
- 7. Mr. Theric's Individual Laboratory Scheme— The laboratory consists of 24 seats with four lockers and sixteen reagent bottles attached to each seat. The boys are given charge of these lockers along with the apparatus that they need very often during the term. The locker system (or the individual laboratory system as we may better call it) was introduced by Mr. Eric, most probably for the definite purpose of saving the students' time which they would waste in taking the apparatus from or returning it back to the teacher every day, as also the consequent breakage.

As soon as we stock sufficient apparatus. I hope to arrange it in these lockers under the following heads:—

Chemistry, Heat, Light, Mechanics, Magnetism and Electricity with a list of the articles pasted on them. The student can readily and at any time examine the articles that are under his charge, on the one hand, and the teacher can easily check the breakage etc., on the other. Much wastage of time and materials is avoided in this way and thus a little money is spent in order to save more of it.

- 8. Comparative Study Scheme— The individual laboratory scheme proves useful to us in our comparative study scheme as well. Besides correlation with life and other subjects, a comparative study of the different topics in Science itself is carried on even in the actual practical work. Thus after preparing and experimenting with, say Carbon Dioxide Gas, boy's are asked to keep their apparatus intact. When they read something about Hydrogen Gas, they are reminded about the Carbon Dioxide Gas and asked to prepare an apparatus for Hydrogen from it. Thus not only does this remove the boredome of unnecessary and easily avoidable mechanical work. (of course they may be given enough practice in boring and bending in the beginning of the term) which blunts their imagination, but also saves a lot of time, economises the material and gives them sufficient time in proceeding with the intellectual part of their assignments.
- 9. Extra Reading and Science Library—To develop a taste for extra reading in boys, booklets such as "In Search of Science, Everyday Science etc." have been purchased and thus boys are encouraged, by very easy stages, to read extra books on popular science and write a gist of these books, with their personal opinion of

appreciation or otherwise, in their diaries. Some of them write articles which they read out and explain, as mentioned elsewhere in the Science Union Meetings.

A regular chart of extra reading, which shows the books that a particular boy has read, is also maintained.

- 10. Manuscript Magazine—The articles prepared by the boys as a result of reading of extra books on science are filed in a manuscript magazine from which articles are selected for the school magazine.
- A maximum minimum temperature graph has been maintained in the Laboratory to which we have also added a graph for recording the temperature as indicated by the wet and dry bulb hygrometers. Two boys are made responsible for drawing the graphs and the other boys also are expected to know something about it. This enables them to forecast weather to some extent and also gives them a practical knowledge of the University curriculum.
- 12. Individual progress graph—The syllabus of these two university classes is divided into fifteen parts and the individual progress graph is based on this. In:addition to the University syllabus as we have already mentioned under certain sub-heads elsewhere, we have made some extra minimum demands from the students in connection with the science work. They may, therefore, indulge in a scientific hobby, read a library book or deliver a speech in the Science Union meeting during each term. The individual progress chart includes all this.

13. Economical Compound — Collective-Individual-Quality-graph. To record the quality of work of a particular boy and in order to save paper, time and labour, an economical - compound collective-individual-quality-graph all in one was prepared. In this graph the progress of six or more boys can be recorded on one page.

Inspirational and utilitarian Science which not only has a soul elevating influence on boys giving them an insight into the ways and means by which they can utilize their scientific knowledge in the service of man, but also prepares them for life, (of peace and prosperity as against the Facist system of education which prepares them for death) has to be dealt with and discussed before the description of my experiment is concluded.

14. Utilitarian Science or Science as an activity Centre. I think you will bear me out when I say that there are many boys who do not know why they read Science or for the matter of that any other subject.

When an average boy is confronted with a difficult exercise in Geometry or Science he at once puts a question in a jocular way, of course when he finds that the teacher is in a good mood. "What is the use of studying Geometry? When have we to make these Geometrical figures in future? What has the battle of Plassey to do with our life? Where will calorimetry be needed?" and so on.

Here again you will agree with me, when I say that there are many teachers who simply evade the issue by saying, "You read these subjects because you must or else how can you pass the Matric and join a College?" There are others who explain to the boys and rightly so the utility of these subjects in their future life

(of course only when the boys ask for it and so satisfy them or most of them.)

The boys may or may not know it. It is immaterial, so long as they go on with their work under the supervision and the needful vigilance of their superiors, because the educative process is a subtle one and it works its way through in developing their minds. Besides, this is a sad state of affairs and surely a sign of dullness. Why should boys be given a chance of asking such a question? Couldn't this utility of subjects be conveyed to them in a subtle manner or otherwise elicited from them while conducting the lessons?

Science, particularly if its principles and the applications of these principles in the service of men are not brought home to the boys during the educative process, I think—the sooner it is removed from the University curriculum the better it is for the educands.

To produce the desired effect a good and trained teacher knows how to proceed in the class lessons and so I need not repeat the oft repeated things and ways once again.

What I need record is to state how I, in addition to the ways already mentioned elsewhere in this connection have proceeded to absorb boys' interest and inspire them with great visions of the future.

As has already been mentioned in January 45 Issue of P. E. J. under the sub-head I. hobbies, the boys have prepared magic lanterns, photographic cameras, etc. For these magic lanterns the boys prepare their own slides, on small celluloid reels to illustrate their own subjects which they write for discussion in Science Union meetings.

Besides this, they fit a dark room, use the wall plug, the ceiling rose or the cut-out etc. and make all the necessary connections in order to get an electric current for the electric bulb needed for their projecting lantern. It is also insisted that they prepare fine boxes for their lanterns and cameras, etc. and fine slides too. (They do it of their own accord also, as they enter into a sort of self-created competition with their class-mates). This develops their artistic and aesthetic sense, co-ordinates their head, heart and hand, brings home to them the working of the scientific principles involved and their utility in the service of man and above all answers the challenge and the charge "that there is a lack of co ordination between the teaching of Science and giving an insight into its utilitarian aspect and value in so far as the school boys and even the collegians do not know how to repair an electric fuse, handle a camera and a primus stove and so on." The boys learn by doing.

Whenever the boys want to take part in discussions or delivering speeches illustrated by slides, they make their own arrangements, more so, if the entry to the discussion room is by tickets, so that they elect their own cashiers or ticket sellers and their own door keepers and organisers. The teachers do not interfere with the boys but may enter the room as members of the audience simply to encourage them in their deliberations, of course the Science master, the Headmaster or the Principal usually take the presidential chair. Hence since the organisers have to deal with boys with diverse tastes, attitudes, emotions and behaviours, they inculcate a spirit of accommodation, develop

the faculty of quick-wittedness and culture, learn the ways of good organisation, come face to face with the need of discipline and so get disciplined themselves.

These, the Annual Function of the Science Union (See P. E. J. July 1944 page 259 and May 1943) and the other ordinary Science Union meetings give boys a fore-taste of:the odds that they may have to face in future and thus serve them as a stepping stone for the preparation for life. The successful termination of these meetings gives them the joy of achievement, satisfies their urge for self-assertion and thus gives them more and more self-confidence.

16 Humanitarian Science or Science in relation to the poor: The Pioneer Educationist of Kashmir, Canon Tyndale Biscoe—whose original educational methods I have described in September 1944 issue of "Teaching" Oxford University Press, has been a staunch advocate and a great supporter of the poor, especially the deserving widows of some of the staff members whom he has been allowing a substantial monthly allowance for a long time. Since his is a dynamic personality, he has infused the same spirit of helping the poor in us which has prompted us to work in our own humble way:—

A sum of Rs. 19-7-0 collected by giving a magic-lantern show to the school boys last year was given to the then principal as the humble subscription of the Science Union towards ending the brutal war (see P. E. J. July 1944, page 259) The year before the last the sale proceeds of the laboratory products were given to the then principal for the same purpose. (See P. E. J. May 1943). The money collected by Messrs. A. N. Safaya, Q. Hussain

M. L. Kachroo, B. N. Bhan, B. K. Koul and others (all 9th class science boys) by giving lantern lectures to the boys was utilised by them of their own accord, in the following ways:—

Rs. 5 for giving milk to their underfed school boysthanks to Miss Burgis who had long since, started this work in our school and was the sole subscriber to this fund.

Rs. 5 for preparing a warm shirt and trousers for one of their school fellows. Rs. 4 for a poor deserving widow at Rs. 2 p. m. for two months.

Rs. 2 for fuel to a poor woman—

Rs. 2-12-0 to three other different poor boys, with which they purchased books for themselves.

My drama entitled 'The Twin Scientists' was staged last year along with Mr. Jardines' "The Tower that touched the sky" and a sum of over Rs. 300 raised, which was given by the then principal towards ending the war.

Here the boys earn while learning and spend their earnings for humantarian purposes and thus follow in the foot-steps of Canon Tyndale Biscoe and Mr. Frederic Jacob who are anxious to help the poor.

17. Use of Reference books.—It was rightly pointed out by Mr. N. L. Kitroo—an efficient inspector of schools that collegians and even graduates do not know how to use or consult reference books. He was kind enough to suggest to us to help the boys to use reference books and so in accordance with his wishes reference books in Science were made accessible to them. They were given directions for using these and assisted in finding useful material for

their Science Union meetings and thus their general information in Science was increased. By this the boys incidentally learn how to use other reference books as well.

18. Science through Drama.—Some say that Drama is a province of literature and so they suggest that it should be used in teaching English, Hindustani or any other language. But why this stepmotherly treatment to Science or any other school subject, other than English? Cannot we use Drama in teaching any other subject other than English? Most surely; yes we can.

The boys can be inspired and thrilled by the romance and triumph of modern Engineering and inventions and the miracles of present day surgery and so on through the agency of Drama.

So in order to give boys an additional information on present day developments in Science and to bring home to them certain facts and principles through a pleasant activity I have just strived in my own humble way, to prepare some playlets in English as well in the mother tongue of the boys (i. e. Kashmiri) which the boys act in Science Union meetings.

## Chapter 10

Another experiment in the Teahing of Science to the University Classes of a High School.

#### THE MOVIE PROJECTOR AND REELS.

The boys' hand-made magic-lantern and slides has gradually been developed into a hand-made movie (which no doubt is crude whereby the boys not only project the slides of their own making illustrating—say the actual working of the heart-receiving blood from and pumping it back to the various parts of the body and so on-but also the slides or actual film reels got from the cinema proprietors for elaboration and amusement. In this way the boys not only probe deep into the mysteries of cinema film working but can also utilize their knowledge in explaining certain scientific principles incorporating them for elucidating graphically certain scientific truths. Unlike the American type of education by radio movie projectors or U. P. Teachers' o ganization programme of the cinema education this is purely a boys' activity—by boys for boys'-wherein they make everything they possibly can with the material that is available to them. Their projection arrangements are fairly accurate though crude and devoid of any large amount of elaboration or artistic touches.

This is however an activity whose pleasant glow is so warm and lovely that it spreads almost imperceptably and kindles the active hearts of children with a serene charming light of enthusiasm and a bubbling spring of conation.

In order to share my experience with my readers, their colleagues and the children under their charge, I would like to record here as to how I have endeavoured to help my students in preparing such a simple hand made movie. Prepare a magic lantern leaving a space for the reel to be moved at a certain speed (to be determined by actual experiment at the time of projecting it on the screen) by a simple handle in a pulley arrangement or simply by hand. On a long strip of celleloid prepare a series of diagrams depicting the various postures of the body in its various movements as shown in the different series given in the diagrams. (a) depicting the gradual movements of the different parts of the heart. (b) showing the gradual movements of food down the gullet into the stomach. Then adjust the magic lantern and the screen and move the celleloid reel, at a speed to be determined at the time of projection on the screen, behind the lens and you will see a moving picture on the screen. If a cinema reel is moved instead, the actors will be seen acting on the screen though far less distinctly, and very slowly. Cinema reels containing pictures of dancing, I presume, will work better here than the reels of other films. As this experiment is only in progress there is much scope for its improvement. As you proceed you will see that your boys will not like or be thrilled as much by making and working a home made camera. a microscope, a telescope etc as they will be enthused by the romance of magic lantern or a mobile thing as a movie which has so much to do with their curiosity, wonder, actual self-assertion and an infalliable attraction for things in motion.

MUSEUMS:—(A genuine demand or what a good science department should strive for & ought to have)

Knowledge gathered in the various ways will easily fritter away or be diffused or washed clean off our brains and will not serve the purpose it is intended to serve if it is not timely and occasionally summarised and effectively consolidated in as many different ways as possible. One such way of revision and consolidation is the building up of a science museum.

In addition to what is learned in the class room or on open field it will be interesting and helpful if some of the attractive educational commodities of the animate and inanimate origin or of animal, vegetable and the mineral kingdom as can be collected together and preserved, if possible in their natural setting, be put together and properly arranged at some place in the school premises. Complete accord should be given to those who say that such museums should not be allowed to become harpers for rubbish but should contain only articles of interest and educational value properly labelled, contributed and built up by boys under the guidance of the staff.

Some progressive institutions have nice, well preserved science and nature study museums but few of them have maintained their natural or historical order, kept them in their proper sequence wherever this sequence was helpful and hence necessary.

These exhibits are labelled giving the dono:s' name, dates and some times the places of procuring them. Nothing more is stated beyond that.

The exhibits should be arranged for exhibition in transparent glass covered receptacles taking the following suggestions into consideration:—

#### DRY EXHIBITS

- (1) Seeds may be selected from those that are grown in the province and arranged in the same order in which they are sown in that province with sketchy descriptions of the conditions of growth, suitable climate and the time after which they yield the crop.
- (2) Almonds, nuts etc may be arranged according to the time at which their plants bloom or put on their green foliage soon after the winter is over.
- (3) Mechanical devices or implements may be arranged according to the stages of their development and evolution.
- (4) Industrial models and specimens of products may be arranged so that they give a clue to the stages at which they are used or prepared.
- (5) Minerals and ores may be arranged in the order of their intrinsic value or utility or productivity a special mention of the processes and stags of extraction and an the names of the products & things that are extracted or got from them.
- (6) Eggs, nests or the skeletons of birds may be divided into two groups (i) permanent residents. The eggs, nests & skeletons of those birds which live in the province permanently throughout the year may be arranged according to the size with a special mention of their food and their general habits. (ii) The nests, eggs and skeletons with their photographs in natural colours, if

possible, of the seasonal visitors may be arranged according to the priority or the dates of their entry into the territory in the season with a special mention of the dates of their departure and other habits.

- (7) Pressed flowers on their stems may be arranged according to the priorty of their growth giving their use, if any, and the time when they disappear again in the season. Roots of flowers and useful plants may be pressed or preserved according to their utility or growth.
- (8) Models of telescopes, lenses, prisms, magic-lanterns telephone, telegraphs, gramophones, steam and other engines, ships, aeroplanes, electric-machines, dynamoes etc etc may be arranged in such a way that they can be easily handled by the students and worked by them.
- (9) Crystals Prepared by the boys may also be exibited. WET EXHIBITS

Fresh flowers, leaves, plants, animals and insects and fishes may be kept immersed in preservatives in glass bottles and jugs.

Where ever possible true pictures of flowers, birds, insects, etc in their natural garb may be fixed with the exhibits where ever needed or thought fit.

To conclude it will, I think, be advantageous if we record here what we have aimed at in science teaching. And these aims are the following:—

- 1 To enable the students to overcome the love of comfort which is imcompatible with student life.
- 2. To acquaint them with great scientific principles and the ways in which these are applied in the service of man.

- 3. To enable them to observe and expalain at the same time and to devise and implement measures for the awakening and promotion of their scientific interests.
- 4. To provide an opportunity to every student te deliver speeches and read papers on useful and interesting scientific subjects which they might have come across in their scientific pursuits.

To train them to have a sound body and a sound receptive mind.

- 6. To give them greater maturity of mind and wider experiences of life before they enter the University or some other career than has hitherto been the case.
- 7. To make them vigilant in and conversant with the present day developments in Science.



Science Union: Annual Function February 1943
Photograph with our own hand made Camera.
Cannon Biscoe—the Founder of the School was ailing by

Cannon Biscoe—the Founder of the School was ailing but his son, Mr. Eric, though present, could not sit for the Photograph as he was busy.

## 11. A School for Life & Hardihood

Enclosed by a nice litle frame in the school assembly hall you will find amidst very beautiful paintings the following inscription by Ruskin:

"I will not hurt or kill any living thing uselessly;

Nor destroy any beautiful thing.

But will strive to cherish all gentle life

And protect all natural beauty."

Before going ahead, I think I must satisfy the inquisitiveness of the dear reader who would naturally ask, "Which Hall? Where?" as soon as he reads the above, by giving him a little history of the school and its founders.

Mr. Erio Tyndale Biscose had worked as Vice Principal of Kashmir C.M.S. Schools for more than a decade under his father, Canon C. E. Tyndale Biscoe—the pioneer educationist of Kashmir who nourished and developed these schools for full fifty years, took over again as Principal after his so well-earned rest and retirement and eventually retired once more during which time he got the traning and imbibed the necessary spirit which enabled him to run these institutions smoothly and efficiently for a considerable period.

Mrs. Eric Tyndal Biscoe was the soul of the Kindergarten classes, so liked and admired by all the distinguished visitors and the imspecting authorities alike, in these very C. M. S. Schools.

When the War broke out in 1939, Engiand was ruthlessly bombarded day and night and the children of the

school going age found it difficult to safely prosecute their studies in their schools in England much less could those English officers in India send their children home for study. It was as a result of those early disasters that Sheikh Bagh Preparatory School was brought into being by Mr. and Mrs. Eric Tyndale Biscoe as a war emergency.

Having a well-established tradition of the Biscoe Schools behind them Mr. and Mrs. Eric Tyndale Biscoe had gathered sufficient magnetism round about them which soon attracted the sons of those English officials placed in India including the children of a few Indians to their new School though, of course, as they say they had to overcome all the odds. In the second dreadful year of the war or the first year of the school which was followed by years of exceptional satisfaction and happiness for them, their boys and their parents alike which fact would be seen for oneself when one would see a lot of really cheerful young faces happily engaging themselves at work at the various places, the playground, the lake, the expeditions or the like with their parents taking a keen interest in their activities on the swimming bath, the stage and their Scout rallys etc., etc., Indeed one would really find on these special occasions and others a true student-teacher cooperation in their common task of bringing up those young innocent creatures—the blessed ones of the Gods—up to a standard and develop their natural propensities and potentialities according to the ideals of real education.

One would certainly be highly impressed and even wonderstruck on witnessing the excellent self-discipline

displayed by these tender little boys when they are engaged at work or on various occasions when they are invited to tea parties, annual functions or displays. These youngsters move and work under their boy-commanders like military regiments in the drill period or march past and stand motionless like statues when called to attention, work smoothly and happily or play their parts in scouting or staging a play perfectly, nicely without grumbling or much ado.

On two occasions when we had invited them to attend the deliberations of the Annual Functions of our Science Union in the C. M. S. Central (BISCOE) School Hall, they had no time to stay on till the end. I turned my attention towards my boys for a few minutes. And lo! When I turned back I found that the whole group of these boys had left unnoticed without causing the slightest disturbance to the audience—a great majority of whom sitting in front of them I am sure, did not know for some time, till they looked backwards, what had happened.

What a lesson for most of our boys to learn!

Surely they can be unruly and shout or yell—as is natural to all young boys—whenever they are free to do so but as soon as they have a job to do they will attend to it focussing all their attention to what they are doing

1. Moral Education.—Education is synonymous with the complete development of man, mentally, physically and morally. But though "Morality" according to Herbert "is the most important and should be placed at the head of any mode of consideration", it is often neglected so

much so that even the Sargent committee did not deem it fit to give it any place in its scheme.

Mr. Eric considers education as something that will "equip us spiritually to meet the evil forces of materialism, and to rise superior to them, so that material prosperity is a small thing by comparison with a clear conscience and that man has profited nothing if he gains the whole world, and loses his own soul.." Mr. Eric, therefore, gives 'Morality' the first place in education. Hence the inscription in the hall be the first thing to attract boys' attention before the commencement of their prayer or any other school work. The soothing effect that the above lines have upon the young minds before they begin their day's work is too vivid to need any explanation.

Scripture lessons and prayers are aids to the development of virtue.

Morality in Sheikh Bagh Preparatory School as C. M. S. Biscoe Schools, is developed by right actions. "The Preparatory School boys have been sending some money annually to the C. M. S. School milk fund, started and subsidized by Miss Burgis, which has enabled the school to feed more underfed boys than usual. The boys collect these sums, perhaps from their pocket money by curtailing their own private expenses and not demanding it from their parents as an additional burden on them. Besides, these Preparatory School boys have been sending warm winter clothes for their poorer brethren in the C. M. S. School every year. This is not all. They learn to be compassionate by showing compassion to birds and ani-

mals as will be clear from the following instances as given in Sheikh Bagh Review:—

The boys found quite a lot of baby birds in the spring, some of them with broken wings and some having lost their fathers and mothers: the first one being the dove which was lying half dead in the nest, its mother having been killed by a cat. One of the boys found it in a cardboard box with cotton wrapt round it. He fed it on porridge and rice pudding by opening its mouth and putting the food in it. The dove lived for three weeks and then died after which it was buried.

Two mynas, having fallen from their nest were lying on the ground, one with a broken leg and the other all right. The boys tried to feed them on mulberries and other things but being too young the mynas would not live and died after two days.

In 1942, Mr. Eric told boys that petrol was brought from across the seas at the risk of men's lives and so they ought to stop its being used for pleasure, at least for themselves.

At the end of war a boy went to him one Sunday evening after he had spent the whole day bathing and enjoying motor boat pleasure trips and said, "I have had my first go on the surf board today. I think it's all right now that the war is over, don't you? I have been wanting to have a try for years."

And though Mr. Eric had not mentioned the subject any more to them, the boys had carried out what had been conveyed to them post-poning all their pleasures for the

duration of war. Certainly he has achieved the truest secret of education by reconciling the seeming contradictions as and in what, Locke has said. "He that has found a way how to keep a child's spirit, easy, active and free, and yet at the same time to restrain him from many things that are uneasy to him....." The moral standard of the boys has developed so much that you will not find anything locked any where in the school or the boarding house."

2 Good habits and learning to serve. As boys come from all over India, the scholars are mostly boarders. They rise up at seven o'clock, rush to the bath room, wash or have a cold bath, dress and run round the field after which they come back and make their beds.

Even though all the boys belong to very rich; families, they are made to dispense with their ease-loving and easy-going habits, if any, by not allowing any servants to make their beds, clean their shoes or do any of the odd jobs that the boys may well be expected to do themselves.

After the breakfast, the boys must clean their shoes and teeth and do all their jobs and report to their house matrons who inspect their kit, their cleanliness etc. Then they line up and are admitted for common prayers after which they have lessons.

The whole school is divided into three tribes or houses, Harmukh, Mahadev, Kolahoi which have yellow, green and brown for their colours and Golden Oriole, Paradise Flycatcher and the Hoopee for their birds.

There are inter-tribal sports and competitions and every tribe has its own tables where members of the same tribe sit together for lunch. The members move round one place each week. Two places on the table are fixed, one for the layer and the other for the waiter. Thus every body gets a turn for a week to become a layer or a waiter.

Before each meal the layer's bell goes and all the layers come and lay their tables'. During a meal if any boy wants anything he tells the waiter to go and get it. The layers clear away the tables and put the things on the side-board at the end of each meal and get a plus for their tribes from the matron on duty if everything is tidy. Layers and waiters secure seven points each for their tribes during the week. Thus as every boy has to be a servant or a master in turn any traces of inferiority or superiority complex are easily eliminated.

3. Social Education. Plato and Aristotle affirm that "Man is not individually self-sufficing; it is the needs of his nature, not merely the demand for luxuries, that compel him to be a member of society.

Two hockey and two football teams, two senior boys and two junior boys teams are trained to play friendly matches against the central or the Hadow High School teams every year—hockey and football being, most probably, alternated with the two schools. And after the game is over, the teams and their concerned teachers are invited to tea where the two captains of the two teams sit together, so do the two centre forwards or the two goal keepers and so on, so that on the long table you would

seated alternately together. This affords a chance to each Preparatory School student to have a heart to heart talk with his Kashmiri opponent in the game, there being absolutely no trace of untouchability or colour bar and this helps in strengthening their mutual understanding and goodwill as equal members of one brothers of one brotherhood—the brotherhood of man with man. Thanks are given at the end by a member from each group, one for the warm well come and the cup of tea and the other for the hearty response and pleasant company after which they go round to see the school and thence disperse.

This warm reception is reciprocated in the Annual Function of the C. M. S. Central High Science Union when the Preparatory School boys are invited to tea in the city School Hall.

In a dinner party at Anantnag High School, after Verinag trip, these Preparatory School boys squatted on the floor in the School Hall and partook of food with their hands, instead of forks and knives that they are accustomed to use at meals, in 'thalis' like their Kashmiri hosts and then slept on that very floor for the night.

In this most impressionable time of their life, these boys get the first lesson and an everlasting impress of true humanity and feelings of social in their most receptive and retentive brains.

These Sheikh Bagh boys take part in the annual mass drill display, the head of the river race, and athletic sports competition with all the Kashmiri C. M. S. boys.

Thus "During their adolescence" as Rousseau would have it and rightly unlike him, in their early adolescence, "the boys are made to begin the study of themselves in relation to their fellow-boys." And so complete agreement is accorded to Rousseau who would make them "loving and tender hearted, to perfect reason through feeling after having made them workers and thinkers."

4. Student-Staff feelings and the spirit of expedition and exploration: "The child is not for the school, the school is for the child," says Dr. Montessorie.

Naturally this implies that an environment which is in complete accord with the natural instincts and tendencies of children should be provided if we mean to bring out their personalities and develop their individualities. In such an atmosphere of freedom, the teacher has to become an intelligent and sympathetic playmate and an imperceptible or unrecogniz-able guide and not an arbitrary teacher, much less an authoritative leader.

This spirit permeates the Sheikh Bagh Preparatory School Atmosphere where the boys "play while they play and work while they work."

When the boys were free enjoying themselves in one of their expedition to Bandipor and Tragbal, they began throwing fir cones on their headmaster and his wife who replied heartily. After this there was a terrific snow fight between two groups of boys when they reached the snow line on the mountain. One of the groups got a terrific bombardment of a snow balls from behind. They turned over, made a counter attack and forced their

opponents' retreat. After this they set on Dr. Benjimen—ore of their staff and knocked off his hat by snow bombs before he surrendered to them.

After a second squirmish between the groups they set again on Col. Osmoston and Dr. Benjimen who said "Pax, Pax." and ran away.

The boys have a perfect freedom of speech, as children have with the parents. No wonder therefore that the boys should sing.

There is a School in Kashmir with a wonderful name,
The Headmaster is Biscoe, a man of great fame,
The boys are a lot of young monkeys, you see,
Who complain when they think they have not enough tea.
They climb up the mountains and row on the lakes.
They grumble at supper when there are no cakes.
The games master is Jammy, so called by the boys,
The School is a good one and packed full of joys.

-R. Uldall.

The youngsters like and even are bewitched while reading stories of adventure and exploration and as thoughts precede deeds, they would simply welcome having to enjoy and participate in such expeditions themselves.

Mr. Diwan Chand Sharma would have boys to undergo a toughening process so that they can stand the strain of modern life. This has truly been achieved in Sheikh Preparatory School where the boys are toughened by taking them on long and short expeditions on foot, in lorries or by boats where they face the odds of life, hail and other storms on the mountains or while boating or sailing in the ruffled lakes. Once they went

up Mahadev 13,000 and were encountered by a hailstorm. Instead of being terrified in such a lonely place, away from habitation, they made up an orchestra in their camps while the storm went on; some had hunting horns, some played Jazz, some danced and jitterbugged while the rest lay in their beds banging their tin plates and singing.

The mountain was completely covered with snow. On their return from the summit, the boys "slid, fell, rolled and came down all the ways" as they say, and when one of their friends, while trying to ski caught on a branch, slipped and hurt his knee and part of his, leg, they made a kind of sledge with two ropes and a few rain coats and pulled him down at a trot for about three miles to the other end of the snow field.

Then they made a stretcher with two staves, raincoats and ropes but as they failed he was carried by a B. O. R. accompanying them to the camp wherefrom he had to be carried by a coolie.

To show how daring an adventure the boys heartily indulged in on one occasion, let me give what the boys have to say about it in direct narration

"On Thursday, May 31, we camped at Farm Bagh on the way to climb Mahadev. Farm Bagh is an orchard about half a mile beyond Harvan, the reservoir of Srinagar. It is a beautiful place with steep mountains on all sides swarming with game, including bears and deer. The fields abound with wild pigs. We slept in the open near our tents. We did not know when the pigs might come. In the early morning there was a cry of pigs. Immediately the energetic ones got out of their beds, and armed with sticks and stones, sallied forth. They pushed out "Flankers" and with the village dogs at their heels, drove the boars down to the river. One old boar, when he got near to the water, turned at bay. The hunter got hunted! The boy who was chasing him turned and ran with a squeal that resembled that of a pig.

Two days later, when we returned to Farm Bagh after the climb we eagerly awaited the morning. A few got up early to chase the pigs. One boy had a nasty experience. He was so intent upon the chase that before he knew where he was, he came upon a sow with three young. He foolishly lobbed a stone and hit one of the young. The sow gave a grunt and a short and charged him. He was saved by a village dog when the sow was about a yard away! Several boys got pushed into the river.

One boy wandered round in the early morning prodding sleepers with an alpen stick and grunting like a boar. The sleepers yelled and leapt from their beds."

5. Punishments and Rewards: There is a thing I quite dislike, though authorised by custom—the whipping of children." says Quintilian.

But since punishments are necessary evil, I would like the reader to think and find out the sort of punishment given to boys from the following:— In one of their expeditions, as already mentioned elsewhere, when the whole of the hill was slopping wet and three of their tents got washed away in the hail storm the three dry ones on the Gojur huts had to accommodate, as they put it, extra tenants.

Their boy leader had a punishment for any one who complained. It was to go out and sweep the hail off the roof.

Another boy Mr. Low writes:—

#### THE ZOO

The Zoo has a table
All of its own
Where naughty boys go
To moan and to groan
They go there because
They behave badly at meals,
Shouting or gobbling or slith'ring like eels.

When a boy does some outstanding deed, he gets a tribal badge for himself and a plus point for his tribe which counts at the time of inter-tribal competitions. Each layer and waiter gets seven plus points for proper laying and waiting for his turn for the week for his tribe.

When the boys pass a non-swimmer, their tribe gets ices. Boys are sometimes made to prepare small envelopes from waste paper for the C. M. S. Hospital when they are naughty.

6. Music: Music is taught under the guidance of an expert who considers it to be fairly high up although she is not prepared to say how it would compare with the

Preparatory Schools in England or the Colonies. The boys are given practice in the art of reading music at sight, as well as vocal exercises, and a certain amount of Part Singing. The boys are generally introduced to the best music and the great Music Makers of the Past and Present (of course not Indian Music) instead of "wearying them by over practice of the so-called simple school music," though no doubt a less classical music as "Walooki the Bear, The Frog and Ox." are also studied some times.

9. Hobbies: Proper utilization of leisure is an important aim of education according to some. How else can this aim be achieved than by inculcating the habit of engaging one self in doing some hobbies in one's leisure time. Under the sympathetic guidance of experts, boys are busied in various kinds of hobbies on half holidays e.g., Chess, Clay modelling, basket work, leather work, gardening, tennis, Chip-carving, Scouting Skipping, Boxing, and Carpentry.

On entering the hobby store one would be wonderstruck by the dexterity, nimbleness and accuracy of detail with which a boy Mr. Hue Biscoe has prepared a fairly large model of a Railway Station about 10 to 15 feet long, placed on a long table, with elaborate metallic rails and all their shifting arrangement. Indeed a stay-at home or the one who has never had the good fortune of travelling will understand much of its working, though of course he needs travel to witness the bustle and experience, the thrilling pleasure of travelling by train, with an amazing company of strangers in language, dress and manners.

10. Swimming and Boating: Swimming is an excellent exercise in so far as one has to exert every limb and muscle of the body on it and is essential for all those who ever go on a journey by boat or voyage across the sea; more so for all who live in a watery land as Kashmir where cases of drowning due to capsizing of boats in storms or the like are by no means an unheard of thing. As in the C. M. S. School, therefore, more stress is laid on the learning and teaching of swimming which incidentally teaches one how to save one self as well as others from drowning.

Distinctive tribal badges are not awarded to nonswimmers or to any swimmers who have not learnt the art of life-saving by tactfully picking up a dummy from the deep end of the bath, and are not experts in applying.

Moreover the tribe as a whole is at a disadvantage in securing plus points if there are more non-swimmers in it. Hence the strong swimmers help the weaker ones in their spare time and in this way they try to bring their tribes up by reducing the numbers. Thus under the able guidance of Mrs. Eric Tyndale Biscoe and Miss Weeheizen, the boy instructors were able to pass 37 boys in swimming test and reducing the number of non-swimmers to 7 during the summer months. Ices are given, as already mentioned, to those tribes who have no non-swimmers or have reduced their number to zero besides securing 5 plus points for each non-swimmer passed. I am sure

it will make interesting reading if I tabulate the points gained in the various items by the various tribes in the inter tribal swimming sports.

Boating: On the Boulevard Road just from the Gagribal point you will see on the simmering surface of the Dal Lake, these Sheikh Bagh boys boating and bathing every fortnight. They learn to row with their hands, with paddles and with the oares. On their Annual trip they rowed the twelve oared cutter 15 miles to Mansbal Lake and thence to Bandipore across the Wular Lake, a ditance of 18 miles more. Besides they had a "Steering race on the lake in which each boat had to pass through and round various posts without touching them, to pick up three bottles floating on the surface of water and finally to drop a pebble into a tin fixed to the finishing post. Each crew went over the course separately, and was timed, each fault being counted as five seconds."

11. Physical Education: "Our main care should be about the inside, yet the clay cottage is not to be neglected," Locke. Accordingly he advocates "Plenty of open air, exercise and sleep, piain diet....."

I have already mentioned above something about the different heads of Physical Culture. In addition to those gymnastics, acrobats and general sports are being attended to in the school. Standards for different age groups are fixed for different sports and each boy who passes the standard of his age group secures a plus point for his tribe, and each boy who fails to pass it gets a minus point] whereas the one who does not participate gets a zero point.

Besides two best boys from each tribe and each age group and for different sports are made to compete on the sports day which is held annually. In each competition each first boy gets four points, the second three, the third two and the fourth one point for his tribe, the total number of points in the various items deciding the winning tribes. I may record the details of points scored in a tabular form in my own way.

The school is situated in excelleat surroundings in the Civil Lines where boys have free opportunities to study in natural settings.

The yearly total points given for what I have described at length above are adjusted in such a way that they are far less than the total points given for intellectual work in each of the three terms in the year. This sounds a note of warning to the boys who naturally adjust themselves accordingly and try to bring themselves up in study thus brushing aside too much of sports or too much of study Clearly, therefore, though main care is taken of the inside, the clay cottage is not neglected. This will be clear from the following table from Sheikh Bagh Review.

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Table af scores in tribal competitions.

Weekly points.	Haramukh.	Koholoi.	Mahadev.
First term Second term Third term Class Country run Rugger Chess Hockey Athletic Sports Cricket Boating Swimming Climbing Football Tennis Boxing Reading and Recitation	2,591 2,971 135 35 12 80 264 191 350 878 145 60 36	2,668 3,095 158 104 31 40 282 261 275 904 171 60 38	2,563 2,934 125 6 12 30 162 363 200 734 142 120 45

To conclude let us sing their school song which was composed by an enthusiastic parent who participated in the school expedition to the Wular Lake:—

#### THE SCHOOL SONG.

Paddling up the river, rowing on the lake,
The more we keep together, the better pace we make,
Strong in stroke and study, pulling in good heart.
Forward all, eyes on the boat, ready to start.

#### Chorus

The valley and the mountains, the river and the lake. In youth we learnt to love them, the stronger men Well make.

Haramukh	Sheikh Bagh
Kolohoi	Sheikh Bagh
Mahadev	Sheikh Bagh
In all things be men	Sheikh Bagh

Climbing up the mountains, trudging through the Snow,
The less we look behind us, the further we shall go.
Whatever be the weather, stormy, wet or fine,
Forward all, eyes on the top, holding a line.
Working, Playing, living, in all we have to do,
We pledge ourselves to being straight and kind and true,
Helping weaker brothers, putting right what's wrong,
Forward all, eyes on the goal, singing a song.

# 12-Some Educational Activities

"We have reason to conclude that great care is to be had of children's mind and giving that seasoning early, which shall influence their lives always after. We learn not to learn but to dispute and our education fits us rather for the University than for the world. Latin and learning make all the noise."

Judging the present education from this standard it seems that Locke's estimate holds almost as true now as it was in his time.

This sad state of affairs cannot be allowed to continue endlessly—it has eaten into the very vitals of our society and has already had its day. New education, as everything else in India atleast, is moving through its transitional period and there is every danger for the pendulum swing. ing to the other extreme wherein the body or mind may thrive and the soul starve or vice versa. "Caution" has to be called here and education should aim at bringing life for life wherein different seeds or seedlings are sown in different soils suited for the purpose under mass as well as individual care, properly manured, nurtured and fermented till they sprout out and grow into full fledged self-dependent plants that bloom in youth and give fruits of their well deserved existence to them-selves and to the world at large. It is beyond the the scope of this article to say what education ought to be like rather than what it is like at present.

However, I shall endeavour to put as to how, like a few other progressive schools in India, our schools, the Biscoe Schools stand out prominently in many respects. I am describing here for their sake in order to show to them how we aim at developing the body, soul and mind of our boys in a scoutlike play-way manner, thus building round the nucleus of our school motto, "In all things be men."

#### 1. Amphibious Education.

"Besides these constant exercises at home there is another opportunity of giving experience to be won from pleasure abroad. In these vernal seasons of the year, when the air is calm and pleasant, it were an injury and sullenness against nature not to go out, and see her riches, and partake in her rejoicing with heaven and Earth."

MILTON.

But though class-room instruction for literacy and literacy as an axis on which the whole edifice of training rotates are of vital importance in effecting an unchequered progress we, in our Schools, do not believe in a narrow education that is confined to the four walls of the home and the class-room.

Boys are not prisoners to be confined in the school prisons, nor are they fairies to be hidden from the light of day. They are free birds as well as serious thinkers who have to live and enjoy a full and lively life which they can do only if they are given that early seasoning and toughening which Locke and Mr. Diwan Chand Sharma seem to advocate and which they can be trained to do by scouting

sions and hikes and where they get chances of coming into grips with nature or the hard realities of life, a life which teaches them self-reliance, independence and inter-dependence in the same breath, a life which teaches them to help the weak, serve one another in hardships like true sportsmen and above all raises their moral standards, thus erasing and wiping out all distinctions of caste, creed, colour or status and bringing to the forefront their human feelings and making them drink milk of human kindness.

This is the great book of religion that they read in the vast open field or universe of Nature.

The yearly Mahadev-hike or trek lasts for three days. The boys of the 10th class who are eligible for this climb form into small groups of two, three, four or five boys each group, for they have to carry their own kit and provisions—pony or coolie arrangement being made for tents and extra things in special cases. They have to choose between carrying the minimum of equipment with maximum of advantage in the trip and overburdening and handicapping themselves with useless luxuries that embarrass them in the long run. The boys have to be their own cooks, wood carriers and choppers and their own coolies and what not.

These adolescents (for almost all of them are either adolescents or are about to enter the adolescent stage) dare not become ego-centric or introverted and indulge in their own fantasies. They have to share their pleasures and

pains with their companions as true scouts and have as a natural consequence to become extroverts studying and enjoying the bare or real Nature in its true setting in the wilderness. This resolves the stress and strain of their adolescence and redirects their pent-up energy in useful channels which is the chief aim of scouting.

And as there are house-wise competitions in these climbs as well, the stronger boys help their weaker house-mates in the cross-country run and the Zeberwan or the Mansbal climbs.

(b) Lakes. Being a land of water, Kashmir makes forceful demands on its citizens to learn swimming and boating. Swimming being a pre-requisite for boating is taught in the canal or the school tank—the aim is not to allow as far as possible, and boys pass out of the school without first having passed the swimming test. In order to make the shirkers learn too a swimming fee is levied on all non-swimmers after the age of twelve years which whips them on to learn it at their earliest, thus indirectly serving also to remove all traces of the fear of water from them.

Every year boys swim or try to swim across the Dal lake, a distance of about three miles from the Gagribal point. Some of them re-cross it. This not only gives them confidence in water but teaches them the great lessons of endurance and patience.

We have regattas on every Tuesday in summer in which there are house-wise competitions in different kinds of races including the sinking of the fleet.

In addition to muscular exercise and dexterity of limbs which such regattas afford, the boys incidently learn the art and craft of life-saving. As many as twelve lives were saved in 1946 from drowning and hundreds of lives have thus been saved so far by our boys.

#### 2. Scouting and Social Service.

"Scouting is reminiscent of man's past in its atavistic setting, in its spooring, totem poles, camp fires, and games; in it the instincts find full expression and catharsis, and there is valuable preparation for future manhood and womanhood."

ROSS.

Every boy of our school is a scout in so far as he will not, cannot and does not hesitate to put in any kind of labour in order to achieve his own end or help the needy. He is always prepared to do anything useful right from cleaning the lanes and preparing footpaths in snowy winters to carrying loads or chopping wood for old and poor ladies. He is ever on the lookout to extend a helping hand to the needy ranging from animals and birds to human beings. He is ready to help at fires, save lives from drowning or do any odd jobs in any emergency. He has obviously all the qualities of a true scout though he has not taken any scout oaths or badges or participated in any scout investure ceremonies.

But though we are all scouts in our schools enjoying all the scout activities and games and training we do have a formal scout pack too, which is organised by Mr. Mujoo. Only the other day some of these scouts gave individual

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cooking demonstrations preparing dishes which were, perhaps, duly appreciated.

In accordance with Biscoe traditions and inspired by Dr. Edmonds some of the masters and senior boys did go to the different Octroi posts in the suburbs of the Srinagar city to see if they could help as usual any beasts of burden who were either injured or maltreated by the poney men. In the Mansbal camp, Mr. Gobind Joo Razdan did volunteer to make a survey of the neighbouring village with a view to helping its inhabitants in various ways.

To conclude let me give a bird's eyeview of the good turns done by our boys in 1946.

		Rs.	
1.	Money subscribed for the help of widows poor boys	1123-8-	
2.	Sick patients taken out for an airing		
	from the hospitals	627	
3.	Deeds of general social service	1457	
4.	Kind deeds to animals and birds	414	
5.	Number of lives saved from drowning	12	
6.	Clothes provided for poor boys	45	•
7.	Property restored	457	
8.	Help given at fires	17	
9.	Help to women	20	
0.	Help to the blind	87	
1.	Other deeds	626	

#### 3. Refresher Courscs and P. T.

We had the pleasure and honour of having amongst us as our principal from October last onwards Dr. Edmonds M. A., Ph. D., Dip. Ed. who relieved and afforded a welcome opportunity to the Canon to enjoy his well earned rest after more than fifty years of his service in these schools.

No sooner did Dr. Edmonds assume the chair of principalship than he arranged a refreshers course for the staff—an aspect of education which is of supreme importance to the teaching profession in so far as they serve to send a new wave of confidence and refreshment of the technique of teaching through the veins of teachers and bring them or ensure to keep them upto the mark.

Our schools aim at developing the body, mind and soul of our products as I have said before, and it is in this spirit of imparting a full education to the boys that our principal sought to refresh us in the various aspects of our school life.

This refreshers course lasted for one full day which commenced with the morning assembly and an introductory talk by the principal. While retaining the various races, jumping, boxing, gymnastics and games for house competitions the principal has revolutionized the entire system of physical culture in our schools, introducing P. T. exercises and group games which have readily mobilized the spontaneity on the part of children and afforded them a vigorous muscular activity and much good fun. The rhythmic pendulum exercises help in dancing and

developing a graceful befitting carriage about which Elyot says, "Dancing diligently beholden shall appear as well a necessary study as a noble and virtuous pastime."

A talk and demonstration of these new P. T. exercises was then given by Mr. Chandra Pandit and his group of boys who were trained for the purpose under the strict supervision and guidance of the principal. Later group discussions and demonstration lessons in social Sciences, Mathematics and English were followed by an excellent exhibition of the art work of the C. M. S. Girls' school and a brilliant talk on art teaching by Miss Palin. Whereas we whole-heartedly agree with her when she says that art teaching should be left entirely free to develop as it would with different individuals in a free æsthetic atmosphere and little interference from above, we don't, however, understand why she wants to do away with the Model or Scale Drawing altogether when she knows full well that Scale Drawing is needed in engineering and other similar professions. Hence its inclusion in the drawing course by the University. In spite of this little difference, however, Miss Palin's art work and art teaching were decidedly marvellous and perhaps amongst the very best in India, as Dr. Edmonds was pleased to remark.

The final discussion and summing up of the whole day's programme was further refreshed by a light tea.

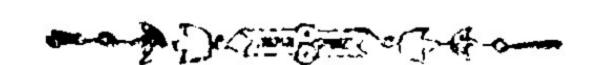
House-wise fire drill has also been introduced in addition to P. T.

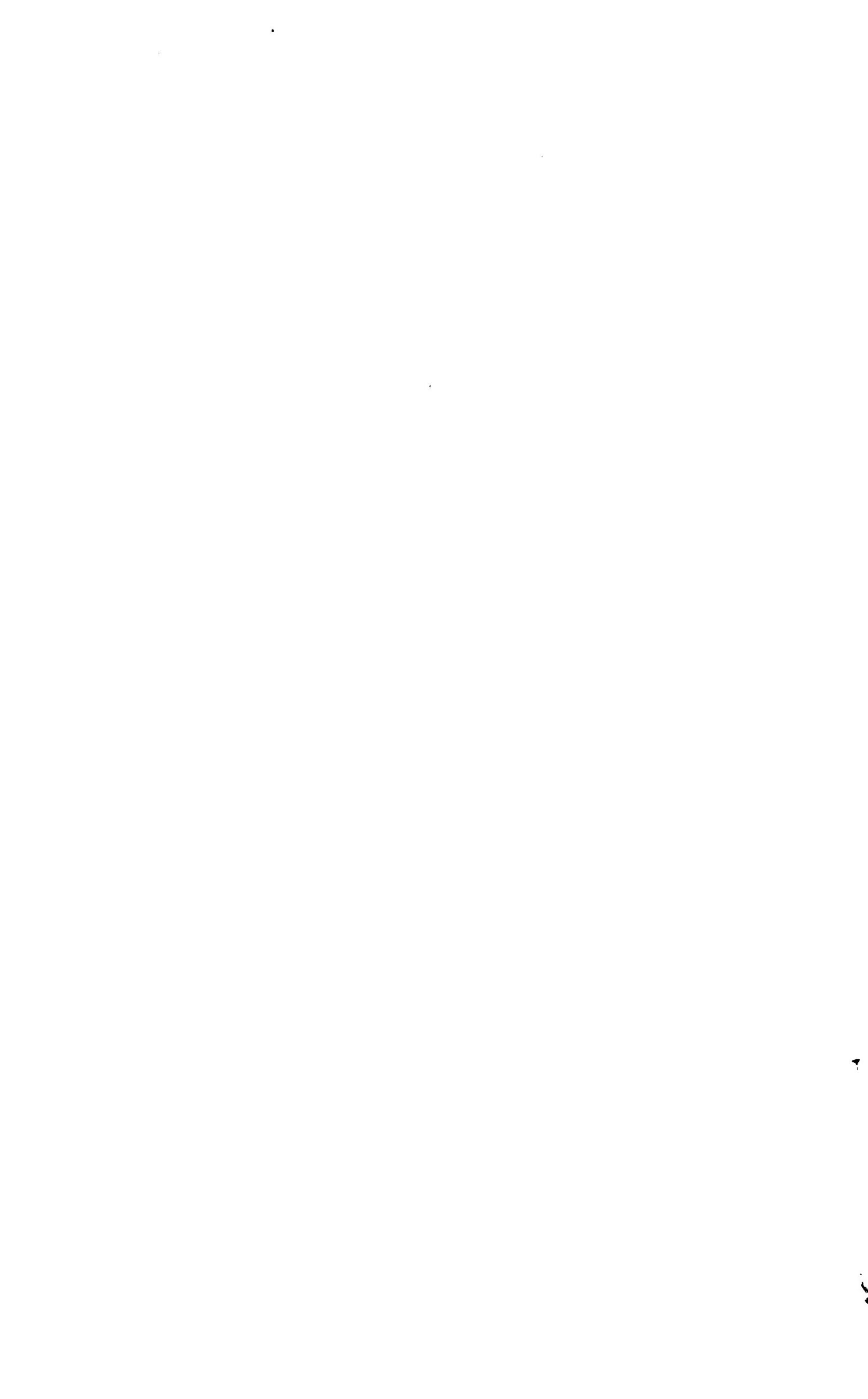
Needless to say that the 10-day Mansbal camp introduced in place of Writer camp by Mr. K. W. S. Jardine,

a former popular Principal was also well-utilized. We went on sailing and swimming and bathing in the lake, treking on the mountain (Croush-near-peak.....).

All the teachers received a thorough training in P. T. and in order to further improve the standard of teaching Science, Mathematics, English and Languages, Conferences of the concerned teachers and the principal were also held with good results.

Our University results do also compare favourably with the results of the best schools in the State which fact therefore clearly shows that our schools do produce men who are robust in body, developed in character and mature in mind.





### Explanation

I. The auricles of the heart expand or contract together and so do the ventricles but when the auricles contract, the ventricles expand and vice versa. This is how the heart works and gives rise to pulse.

On expansion the right auricle receives impure blood from all parts of the body through superior and inferior Vena Cava and the left auricle receives pure blood from the lungs through four pulmonary veins.

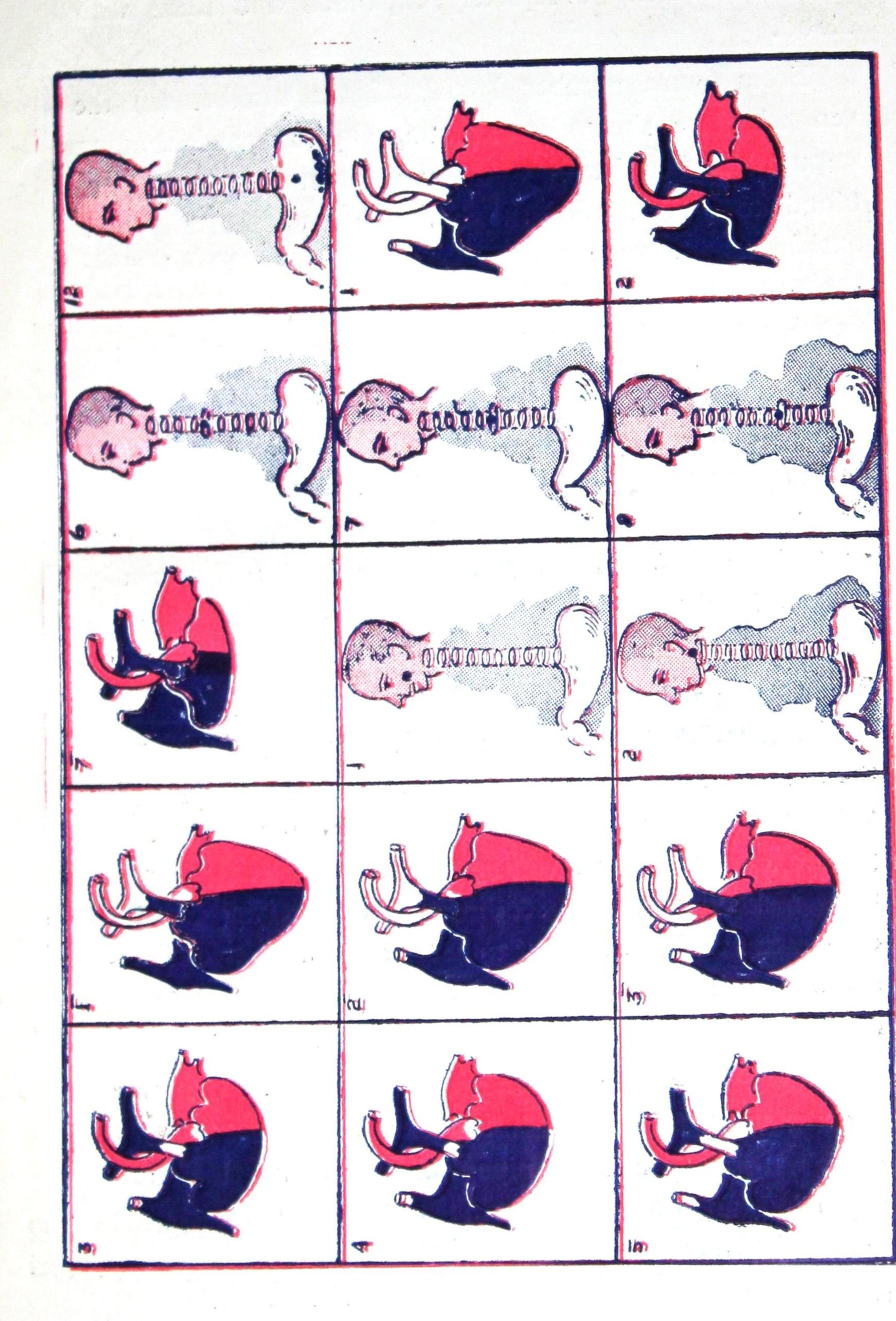
The auricles send the blood to the corresponding ventricles through the auriculo ventricular openings. The ventricles, in turn send it out, the right ventricle to the lungs for purification, through the pulmonary artery and the left ventricle to all parts of the body through Aorta.

(a) In the first figure of heart, for our convenience, the auricles and ventricles have been divided into seven small divisions each, so that for every small division contraction of the auricles, we may be able to show a corresponding expansion of one small division of the ventricles and vice versa.

From figure number one of the series, the ventricles are shown increasing as the auricles contract.

For a contraction of one division in auricles there is a corresponding increase of one big division in ventricles into which the blood passes and so on till the auricles are shown completely contracted at figure number (0)





and the ventricles completely expanded and filled with blood.

From figure number I after figure number (o) the ventricles are shown contracting in turn and sending impure blood to the lungs through pulmonary and pure blood to all parts of the body through Aorta. The auricles are shown expanding and receiving blood from the lungs and body till they are shown fully expanded in figure number 7 after figure number (o) where the ventricles have completely contracted.

ACTION—If this series of fifteen or more figures of heart is drawn on a tiece of celleloid one below the other and then moved in front of a projecting lens the auricles and ventricles will be seen contracting and expanding slowly alternately in turn and thus explaining the working of heart. The figures may be moved at the rate of 20 figures per second or thereabouts.

- (b) The first figure of heart in this series is shown with the auricles completely contracted and ventricles completely expanded, and figure number 2 with auricles completely expanded and ventricles completely contracted by turns respectively, and sending out or receiving blood as explained above when a long series of these two figures are moved in front of a projecting lens. This has got to be tried once again.
- II(a) The passage of a morsel of food down the gullet from the mouth is shown in a series of 12 figures where every ring of the food pipe below the morsel of food expands and every other ring above it contracts and presses it down to another ring below it and so on till it reaches the stomach as shown in figure number 12.

If these 12 or more figures of the gullet and stomach are drawn on a piece of celleloid one below the other and moved in front of the projecting lens of a magic-lantern at 20 figures or so (to be determined on the spot or otherwise) the passage of the morsel of food down the food pipe into the stomach can be clearly seen on the screen.

(b) This series may be drawn not in full but from the mouth with a morsel above an expanded ring and adding one ring after another till the whole figure with the stomach is shown in the last figure.

Card Board or Wood Lever or Spring Apparatus to show the working of heart and the Process of swallowing food:—

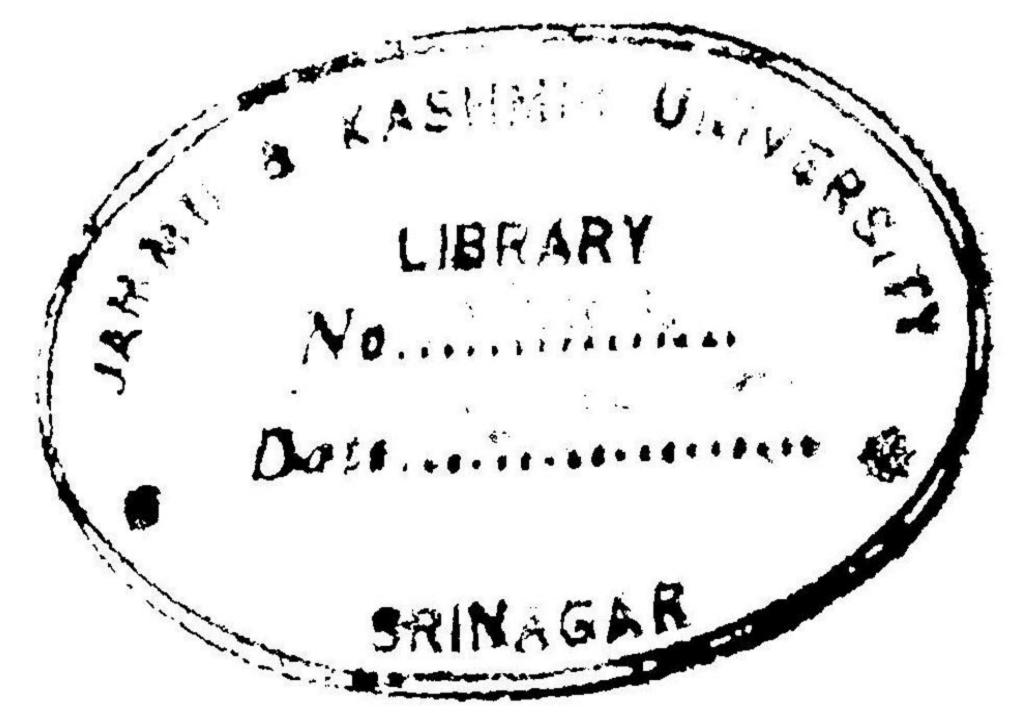
- (a) The auricles and ventricles as shown in the two figures of heart given at the end of the Block, after the 12th figure of gullet and stomach, could be made of cardboard or wood and by means of screw or lever arrangement they could be hidden from sight or revealed alternately one after the other at a quick speed which would automatically explain its working in an interesting and experimental manner.
- (b) The auricles and ventricles of heart could be made up of, say, seven wooden pieces each proportional to the divisions as shown in the first figure of the block and then by means of a screw or lever arrangement these strips could be concealed or brought to sight one after the other so that the auricles and ventricles could increase or decrease in size gradually alternately. When one strip after another could be added to the auricles till they

would completely contract at the same time and Vice Versa.

board pieces or copper wire (or iron wire) and enclosed in a cover with a glass lid with the stomach at the bottom. By means of the lever or spring arrangement, as the case may be, the rings could then be expanded and contracted one after the other to allow the morsel of food to reach the stomach.

While explaining and discussing the whole thing with Pt. Kashi Nath Bhan.....an enthusiastic and efficient art master of a Govt. Technical School......he told me that the (a) and (c) Parts could easily be tried. And I am glad to acknowledge my gratitude to him as he has very kindly promised to try to prepare these two apparatuses for me.





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